

FIG. 1B2

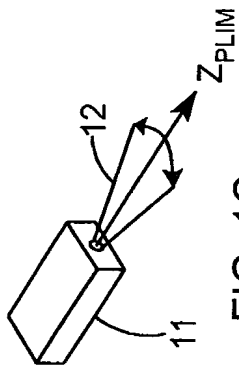


FIG. 1C

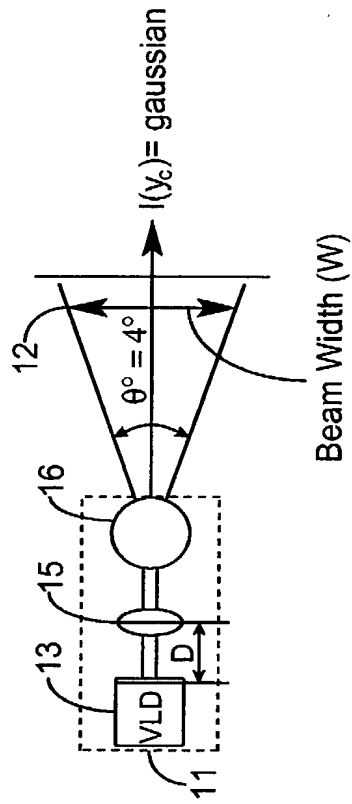


FIG. 1E1

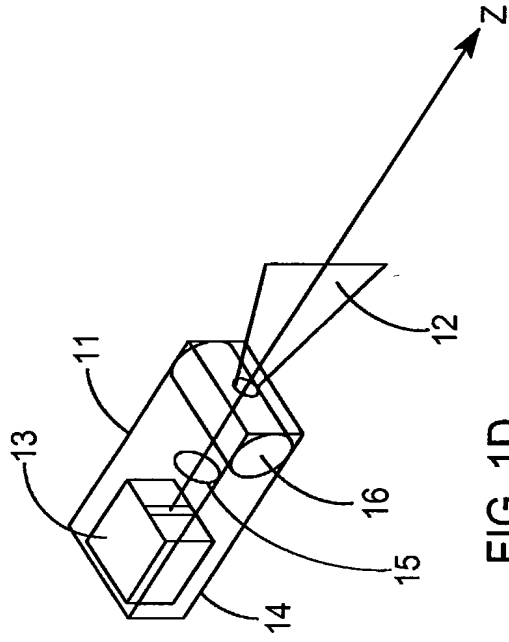


FIG. 1D

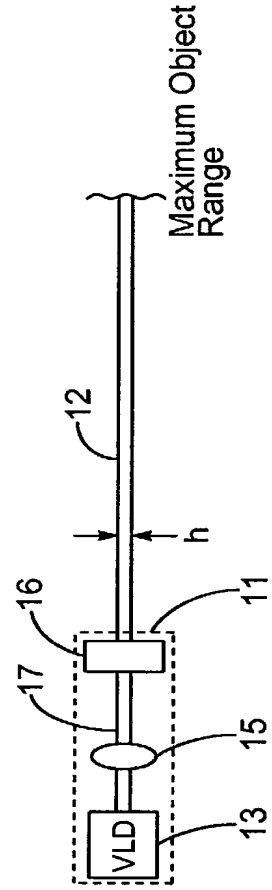


FIG. 1E2

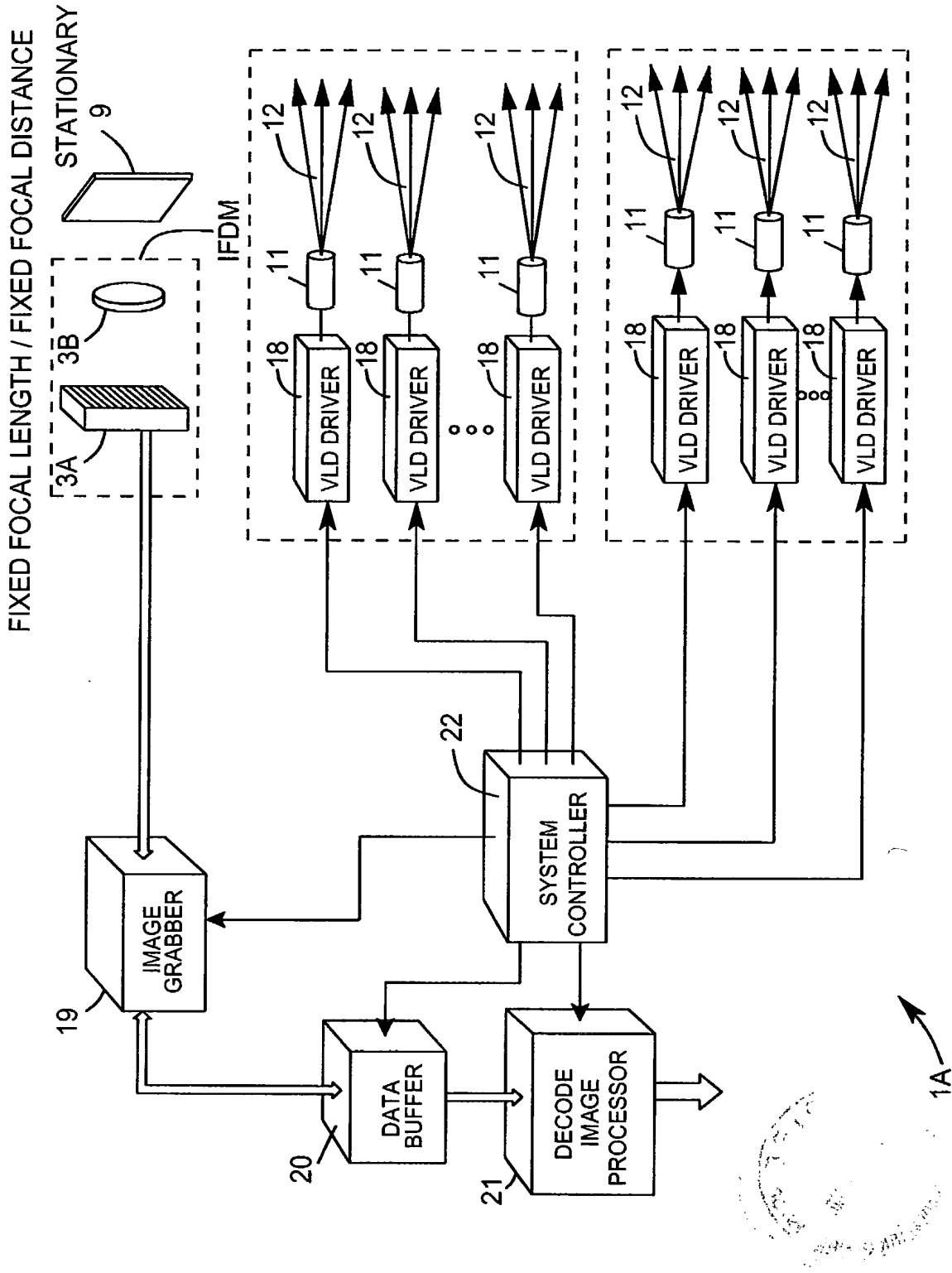


FIG. 1F

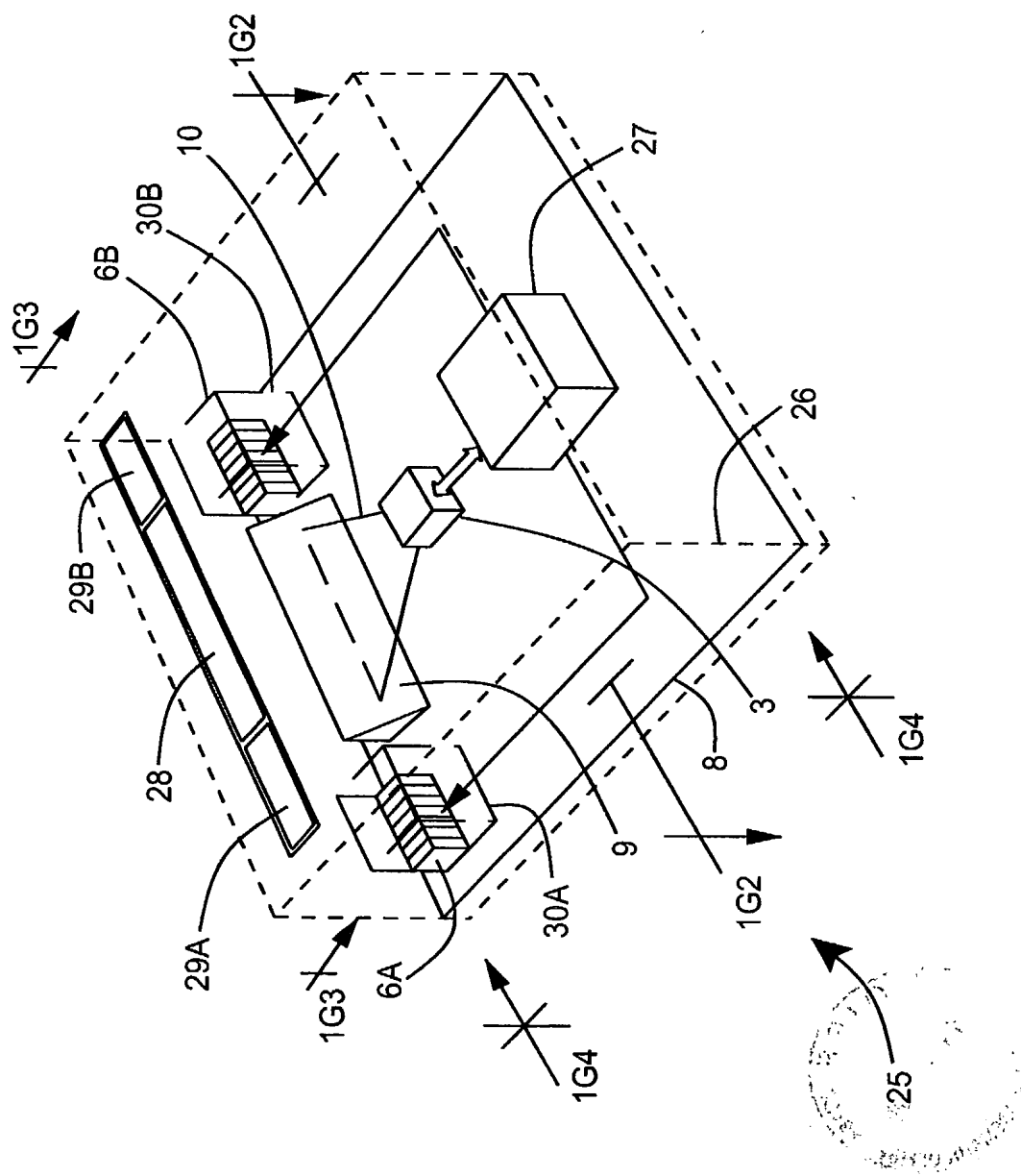


FIG. 1G1

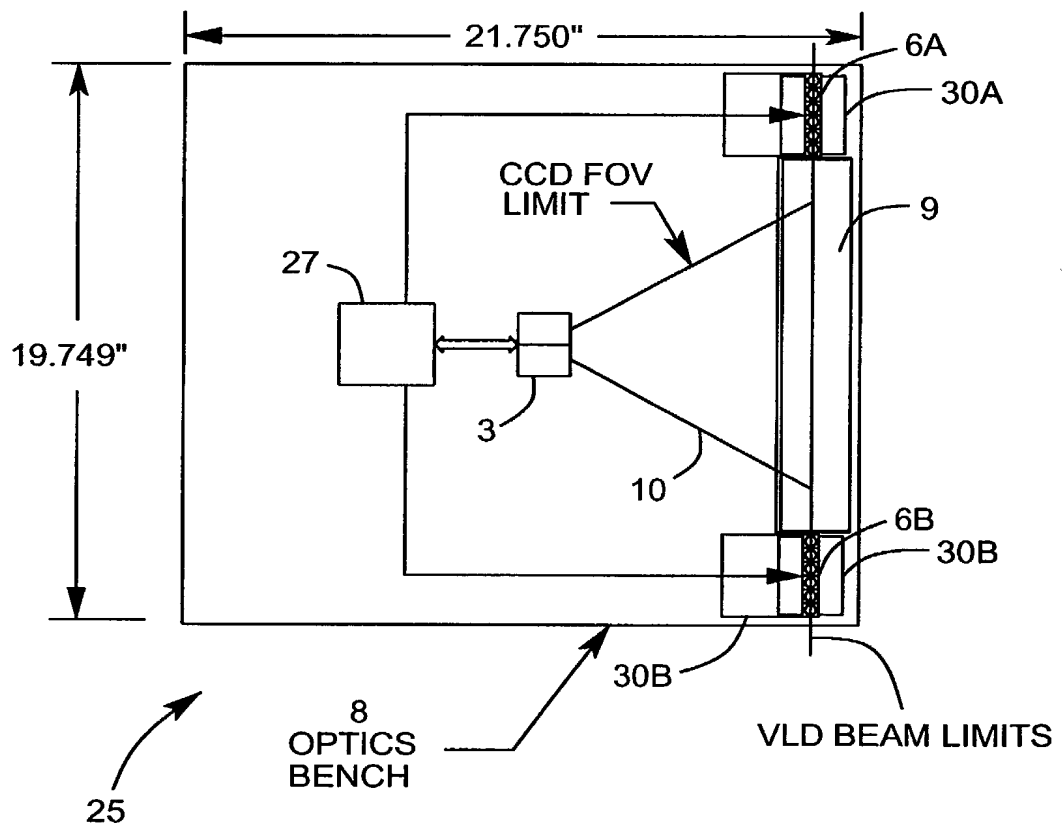
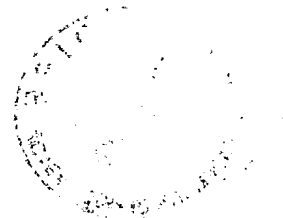


FIG. 1G2



The diagram illustrates a laser system for a laser interferometer. A laser source (25) emits a beam (26) that passes through a series of optical components (3, 6A, 6B, 8, 11, 27) mounted on an Optics Bench (9). The beam is directed towards a target (11) and is reflected back to the source. The system is designed to measure the distance between the source and the target. Key dimensions and labels include:

- 25: Laser source
- 26: Laser beam
- 3: Optical component
- 6A: Optical component
- 6B: Optical component
- 8: Optical component
- 11: Target
- 27: Optical component
- 9: Optics Bench
- 20.0": Total distance from source to target
- 12.118": Distance from source to first optical component
- 3.5": Distance between first and second optical components
- 3.560": Distance between second and third optical components
- 2.000": Distance between third and fourth optical components
- .000": Distance between fourth and fifth optical components
- VLD Beam Limits: Vertical Line Deviation Beam Limits
- Camera FOV Limit: Camera Field of View Limit

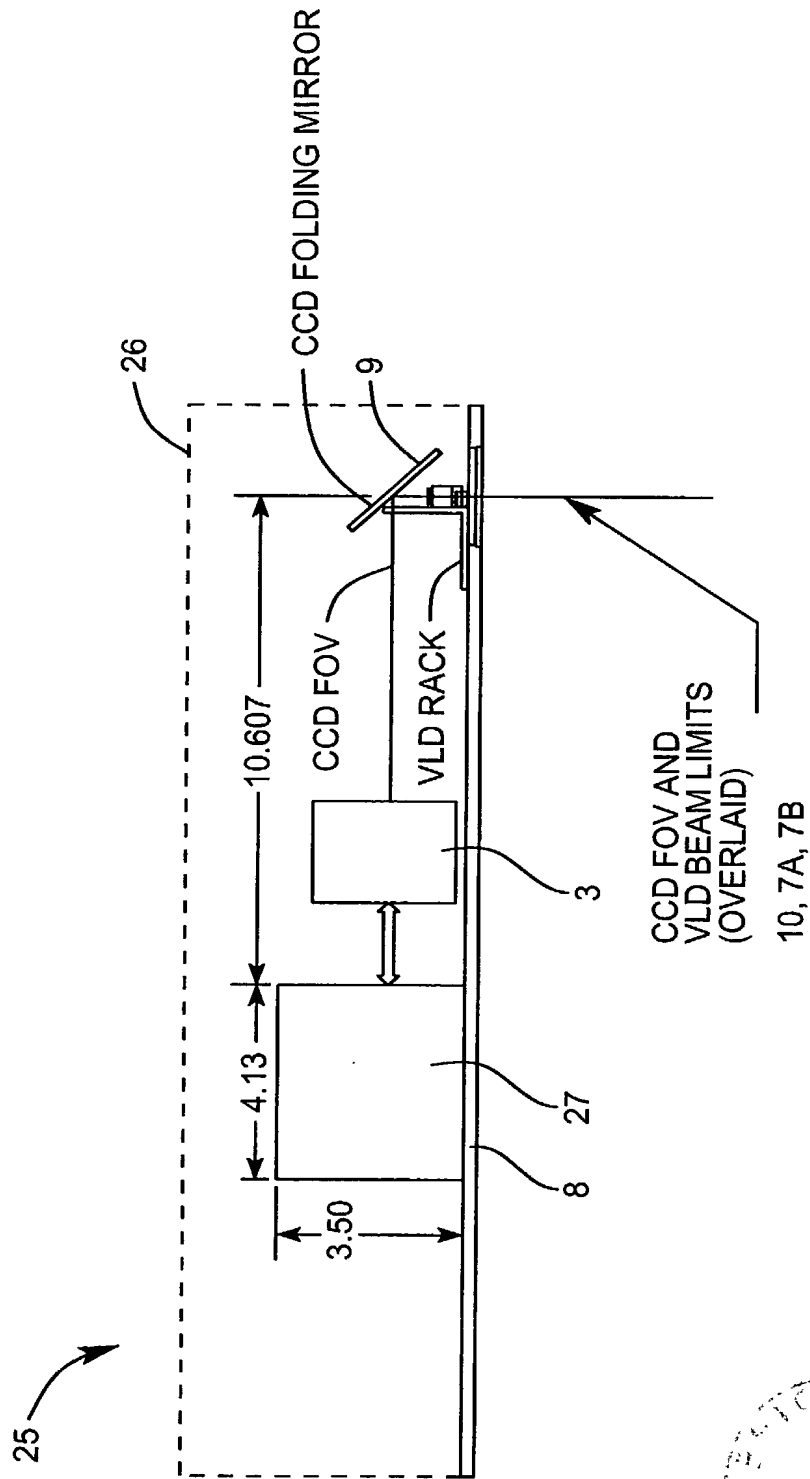


FIG. 1G4

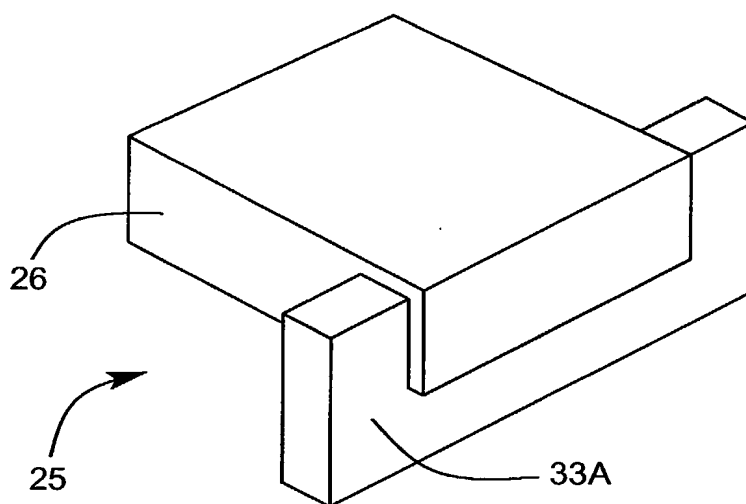


FIG. 1G6

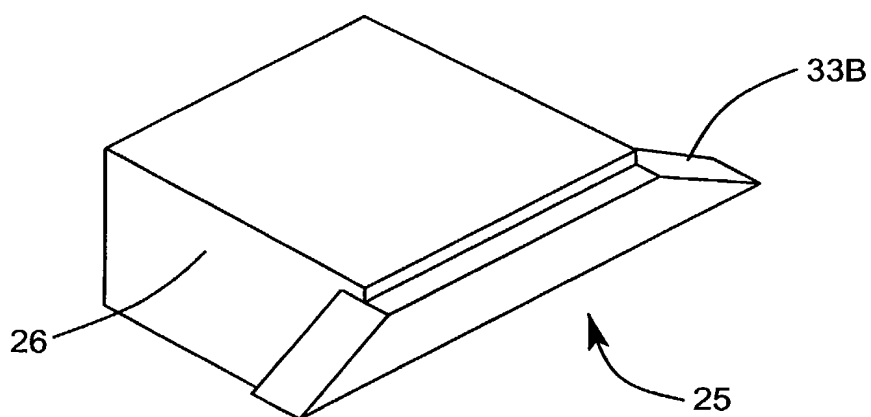


FIG. 1G7



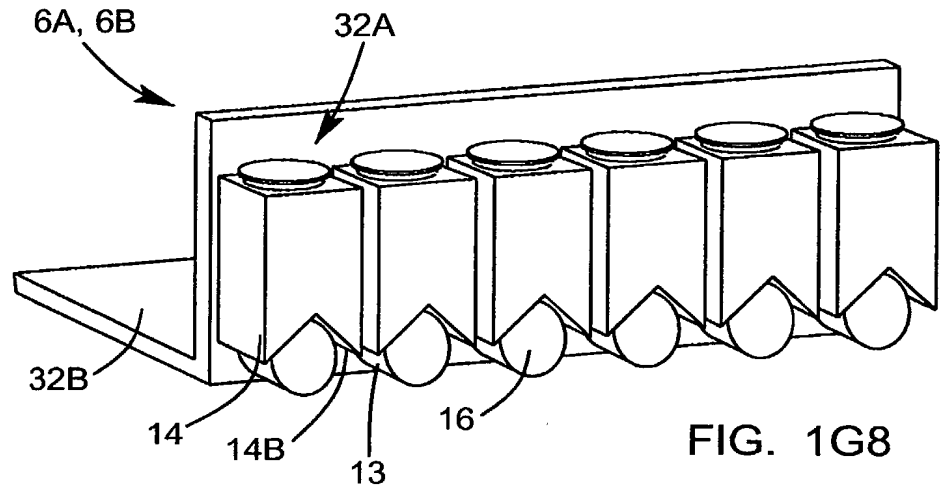


FIG. 1G8

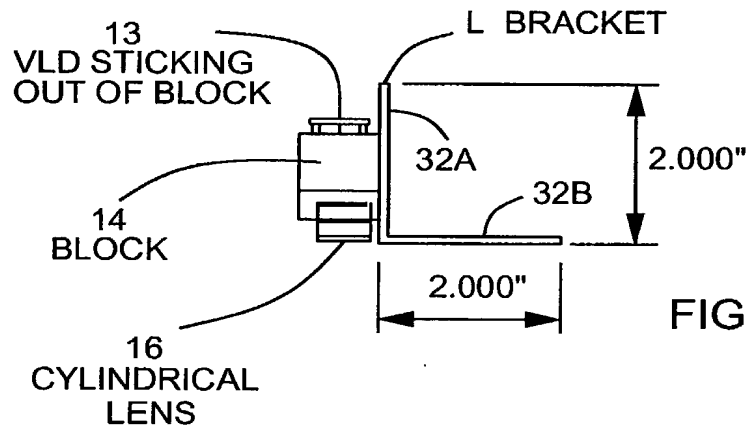


FIG. 1G9

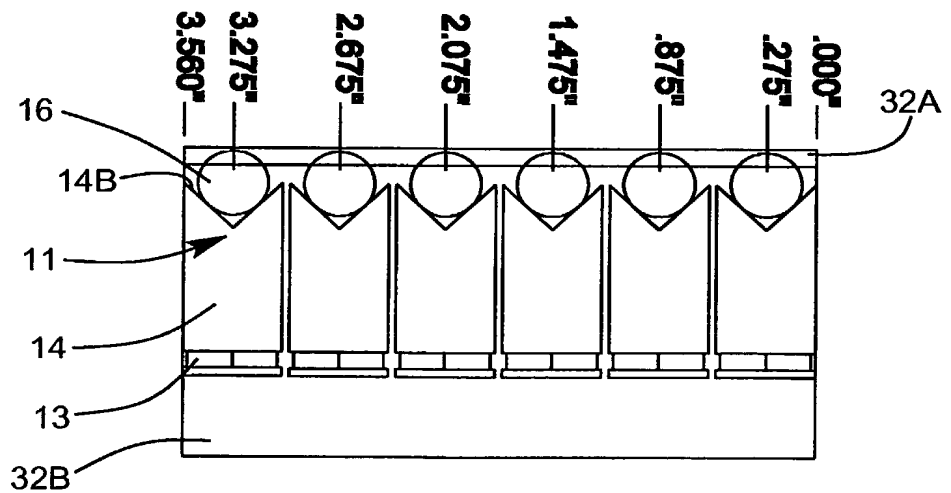


FIG. 1G10



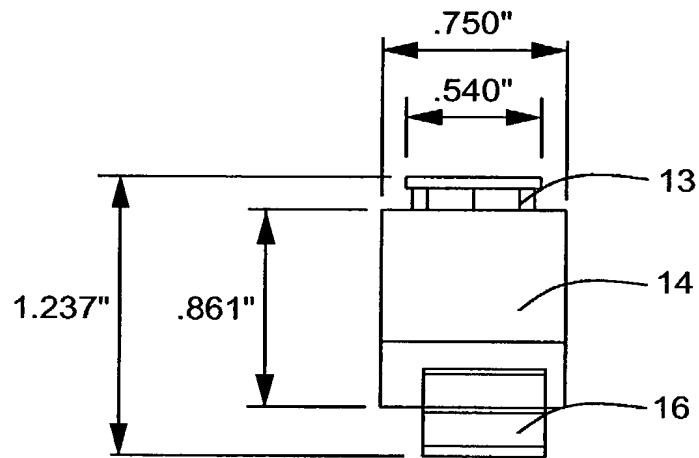


FIG. 1G11

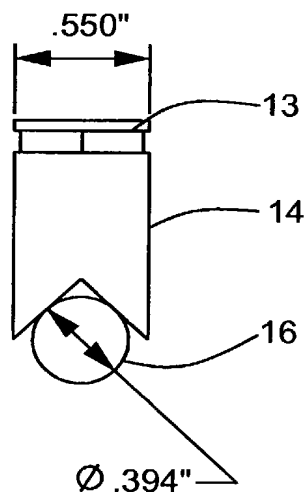
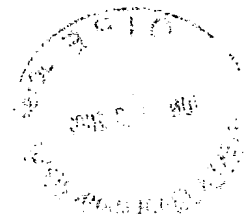


FIG. 1G12



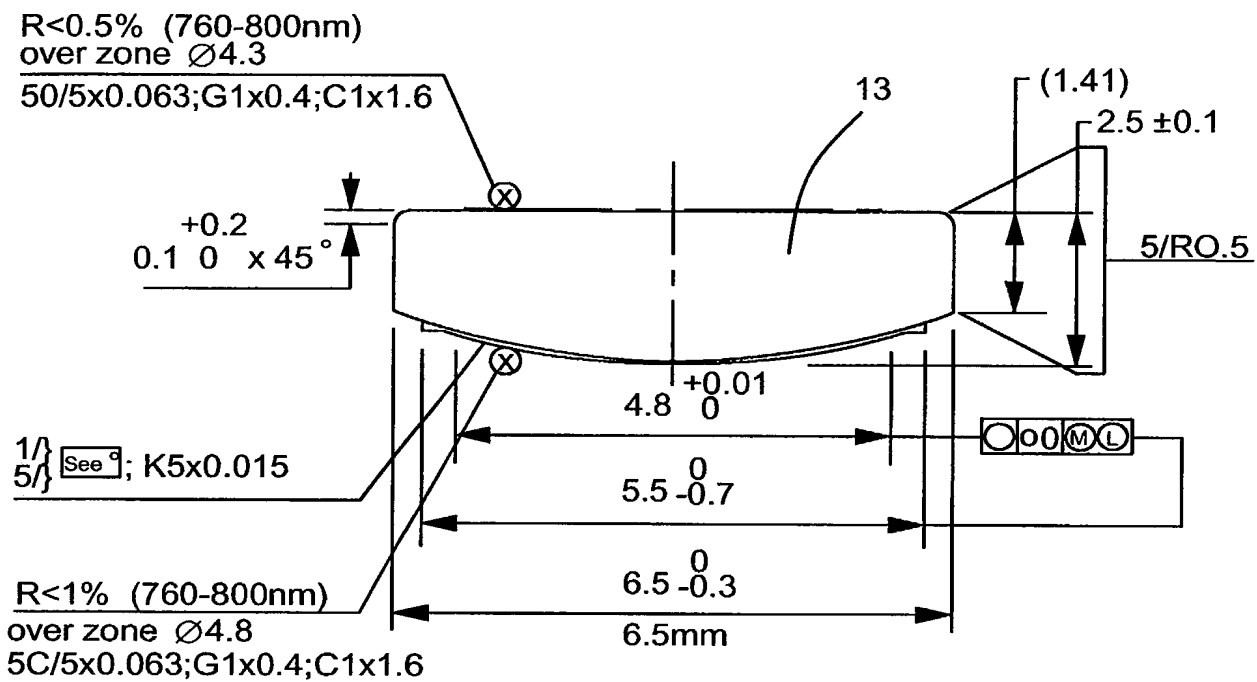


FIG. 1H1

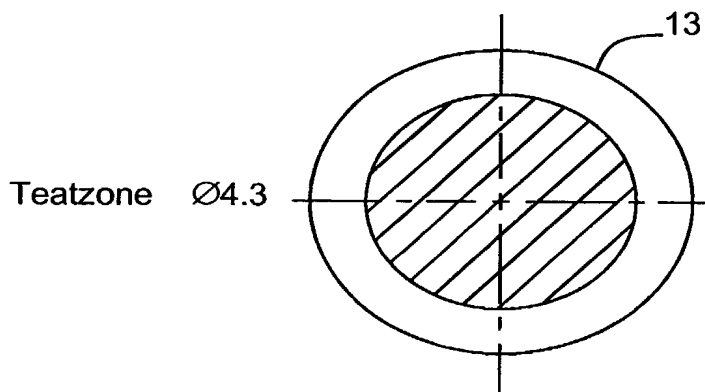
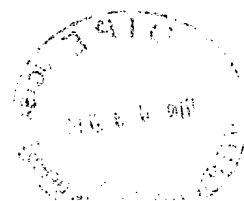


FIG. 1H2



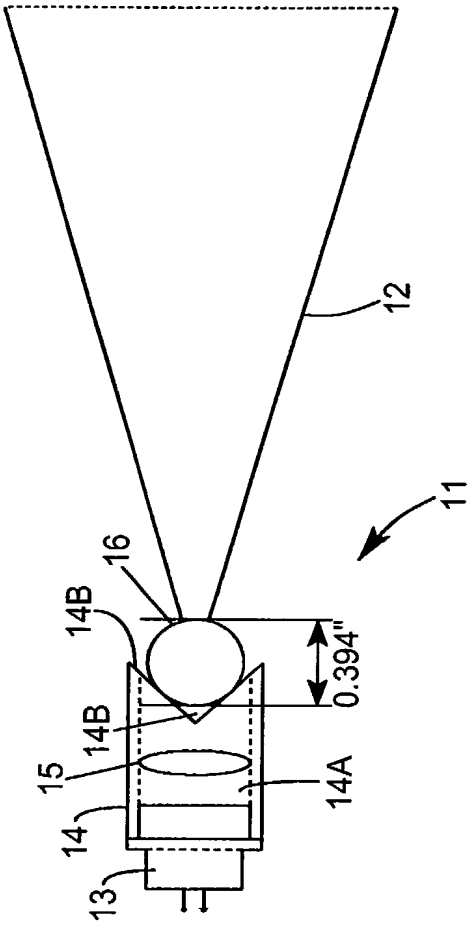


FIG. 11

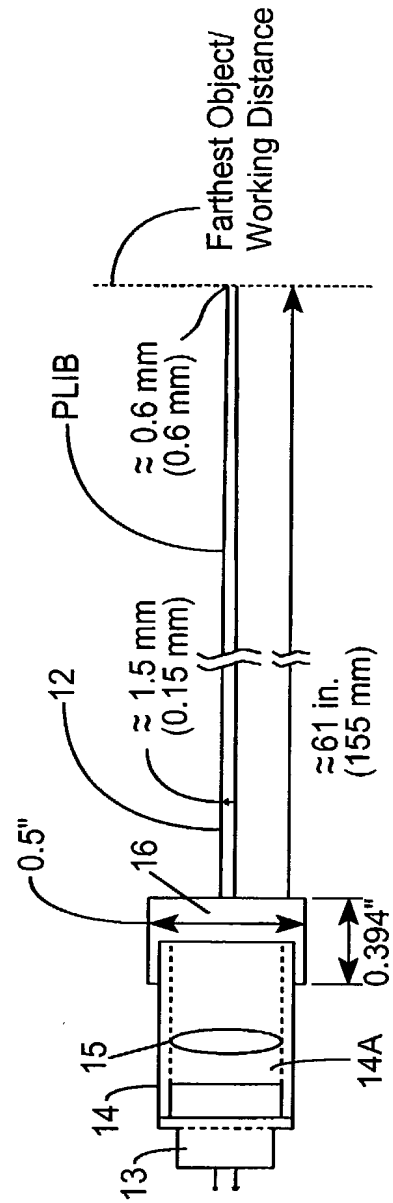
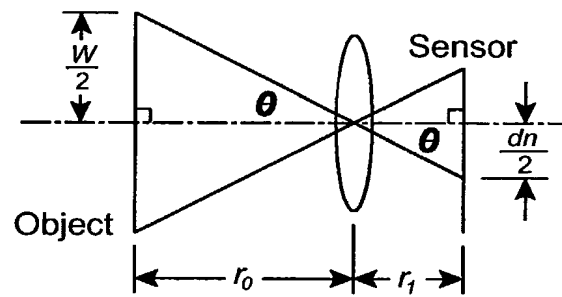


FIG. 112



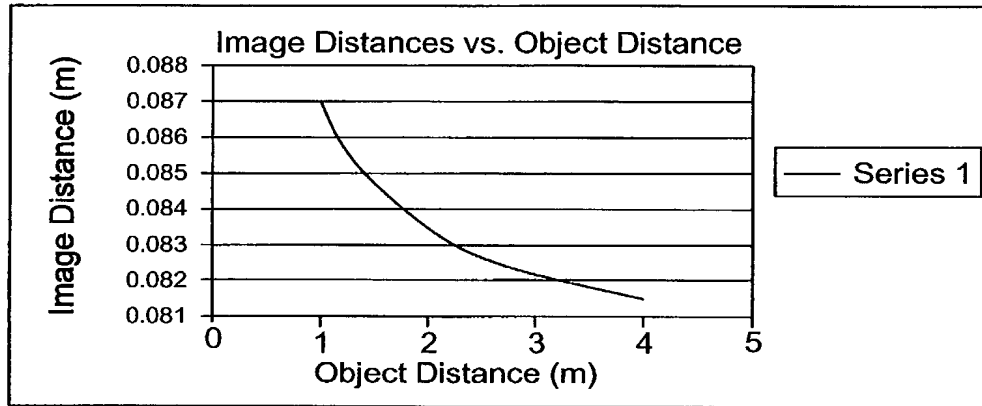


FIG. 1J3

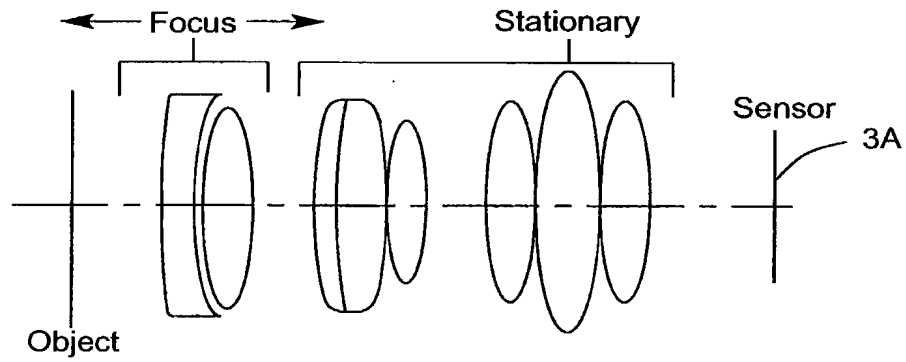


FIG. 1J4

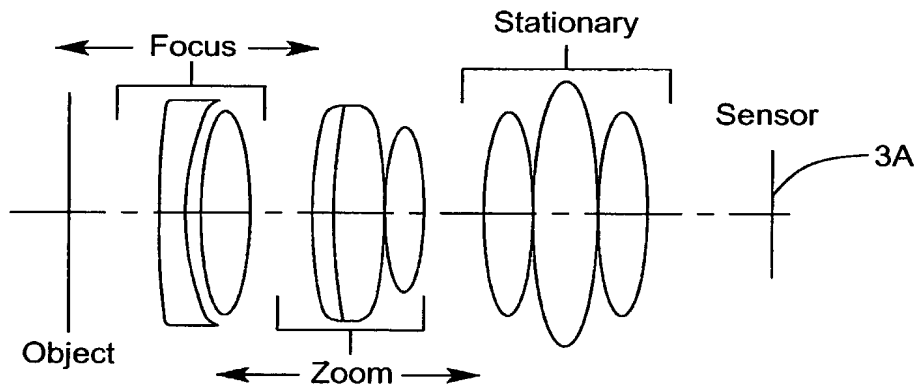


FIG. 1J5



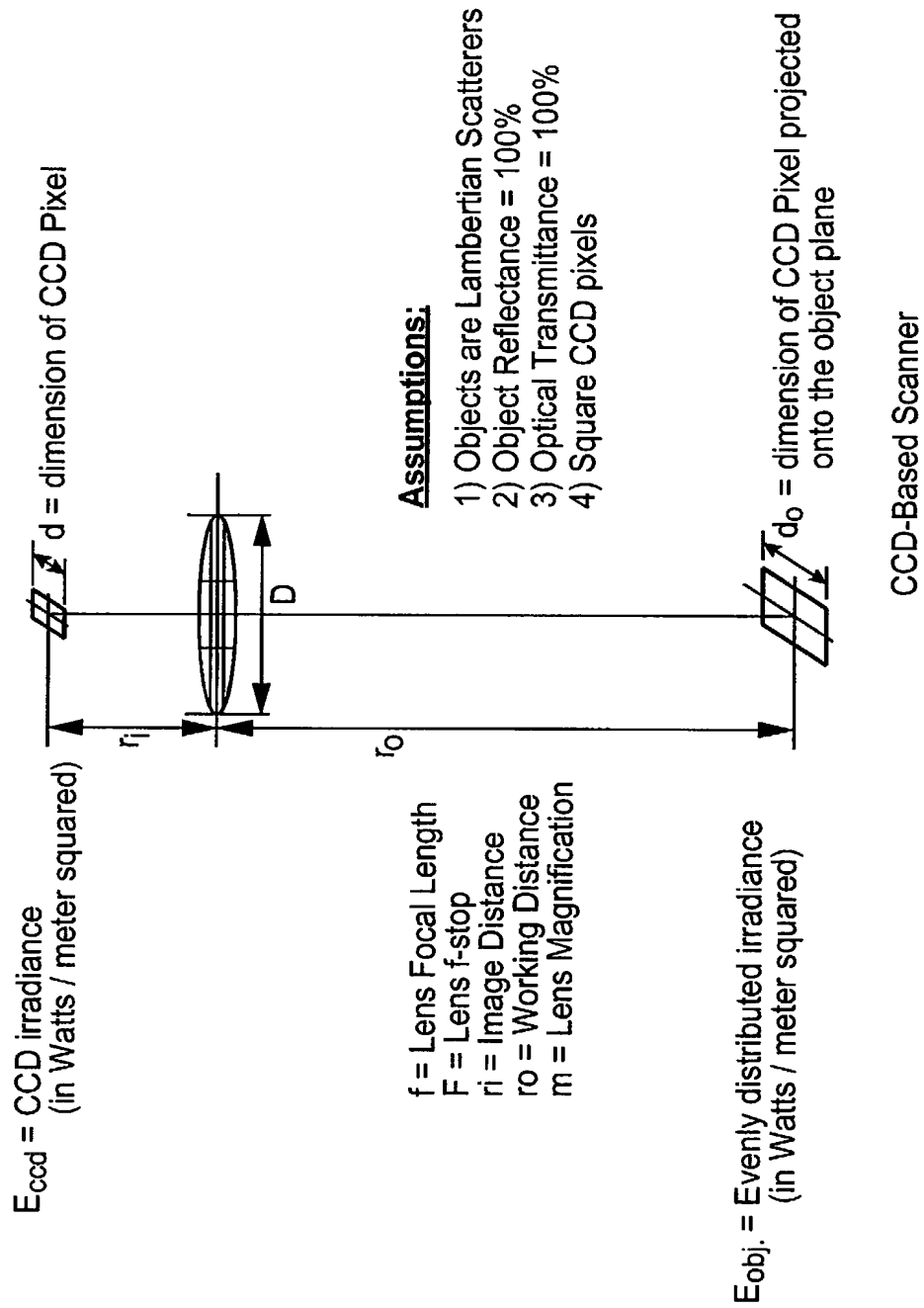


FIG. 1J6

Fixed Focal Length
Lens Cases

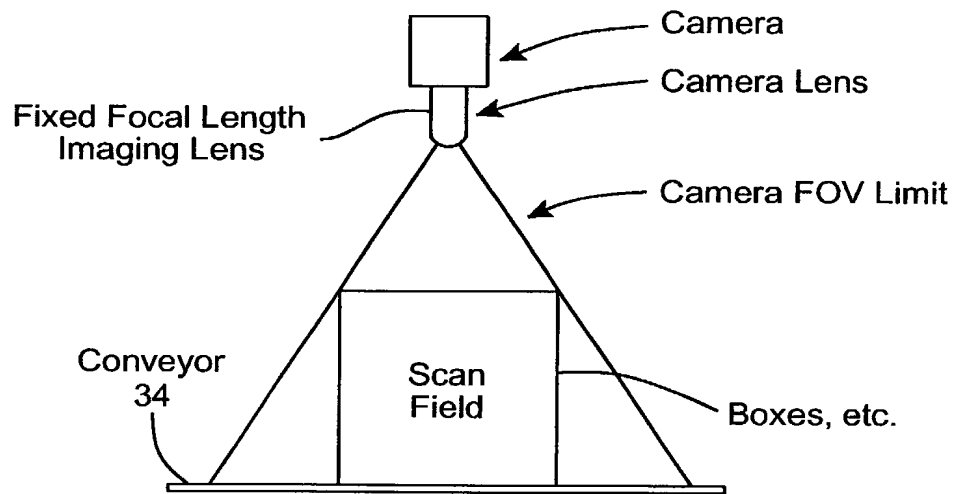


FIG. 1K1

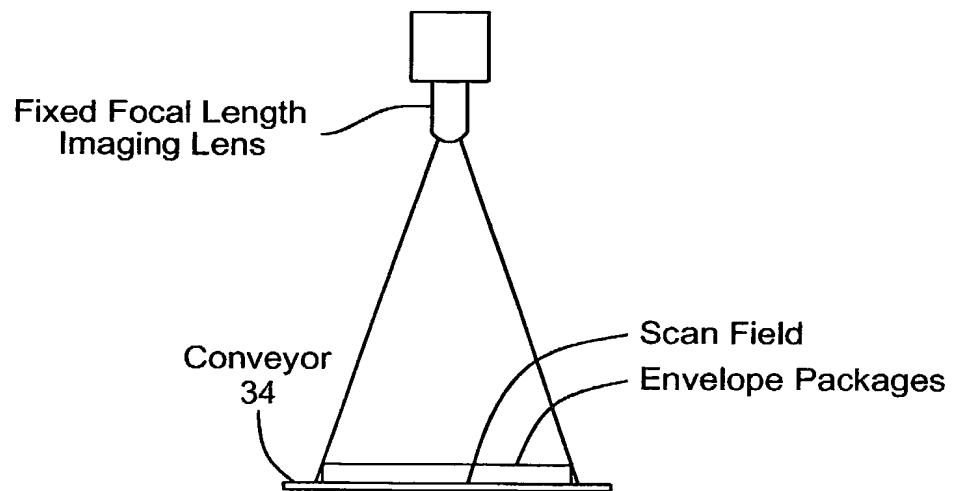
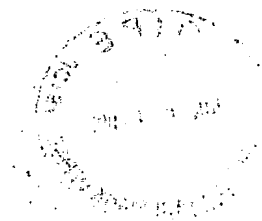


FIG. 1K2



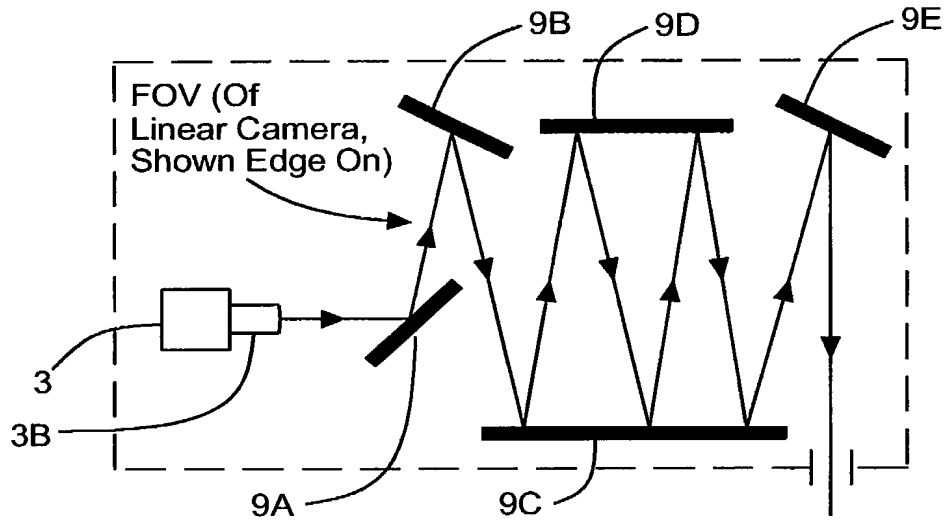


FIG. 1L1

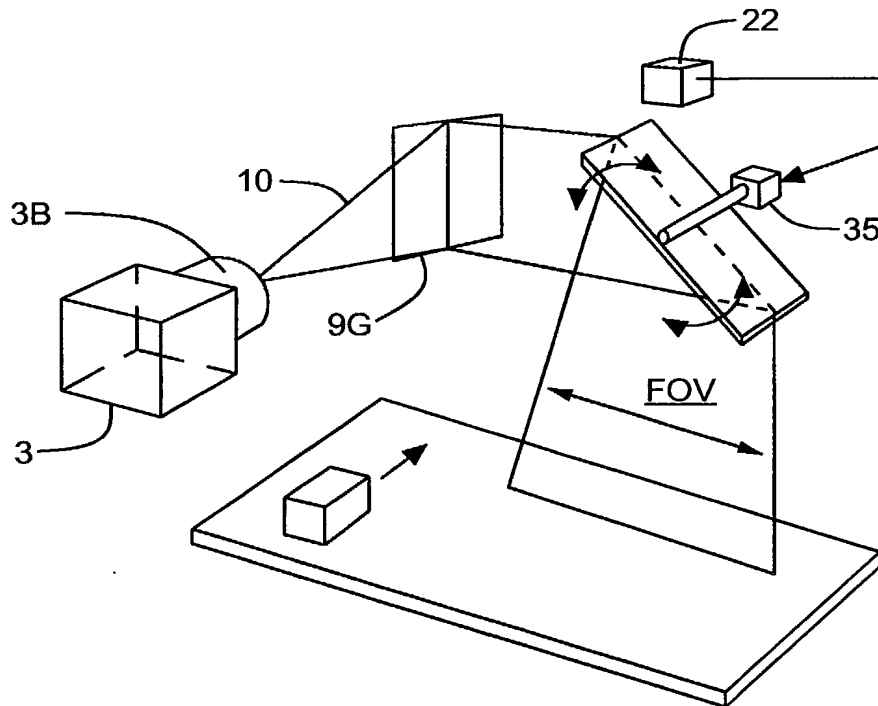


FIG. 1L2



Pixel Power Density vs. Object Distance (General Example)

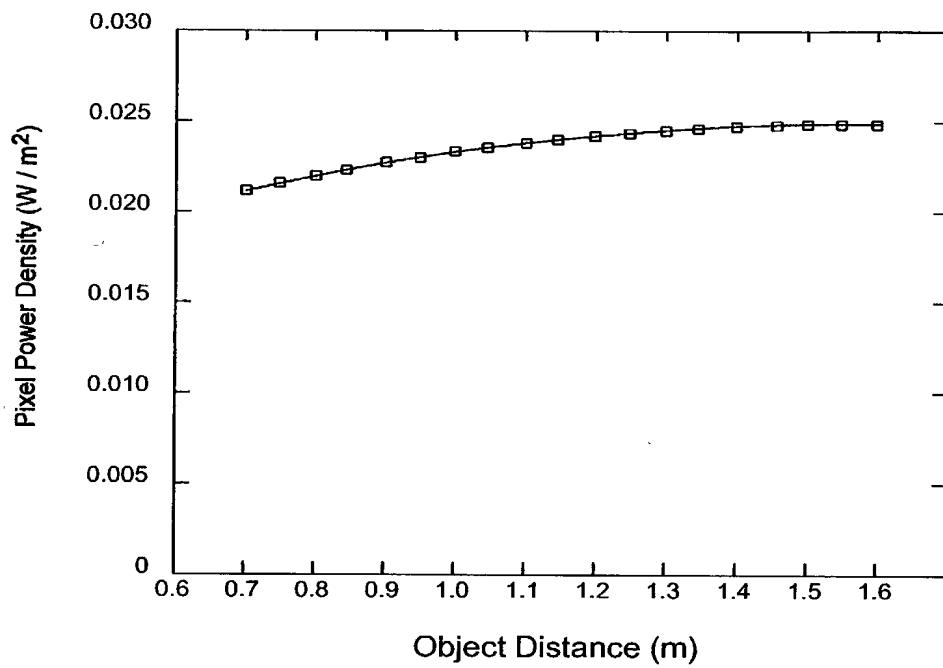


FIG. 1M1



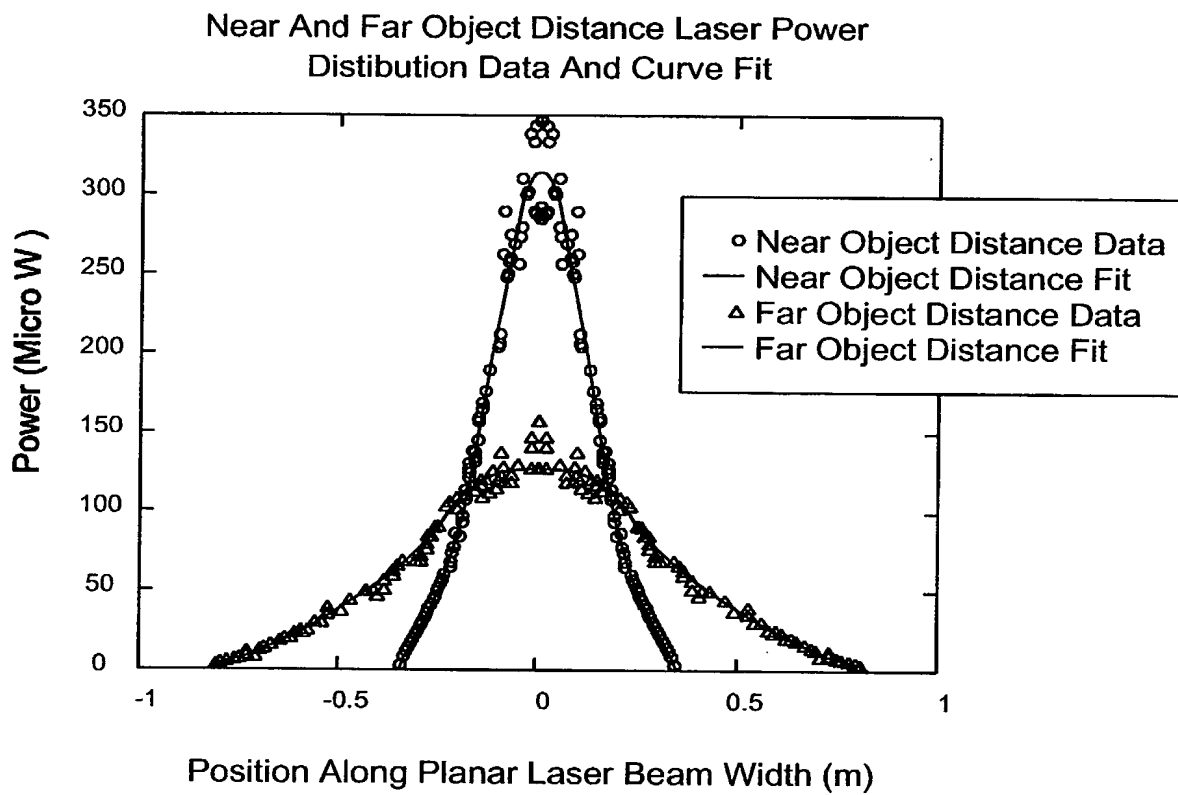
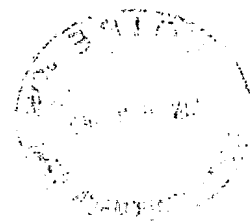


FIG. 1M2





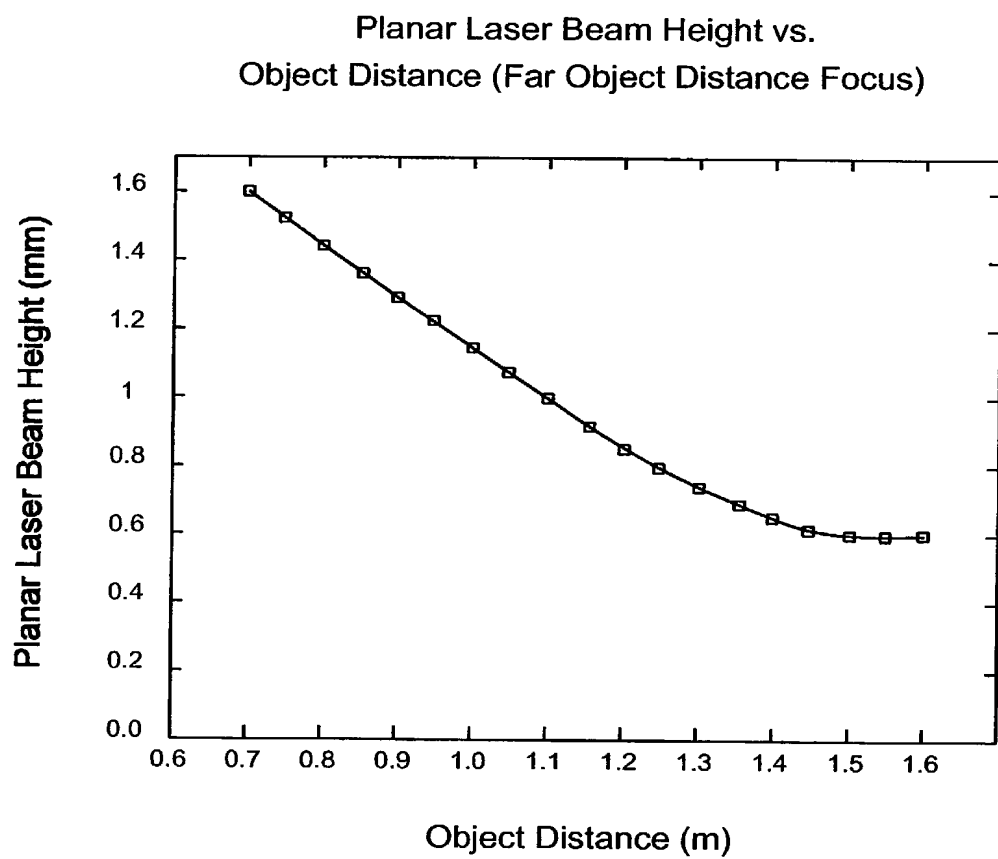


FIG. 1M4



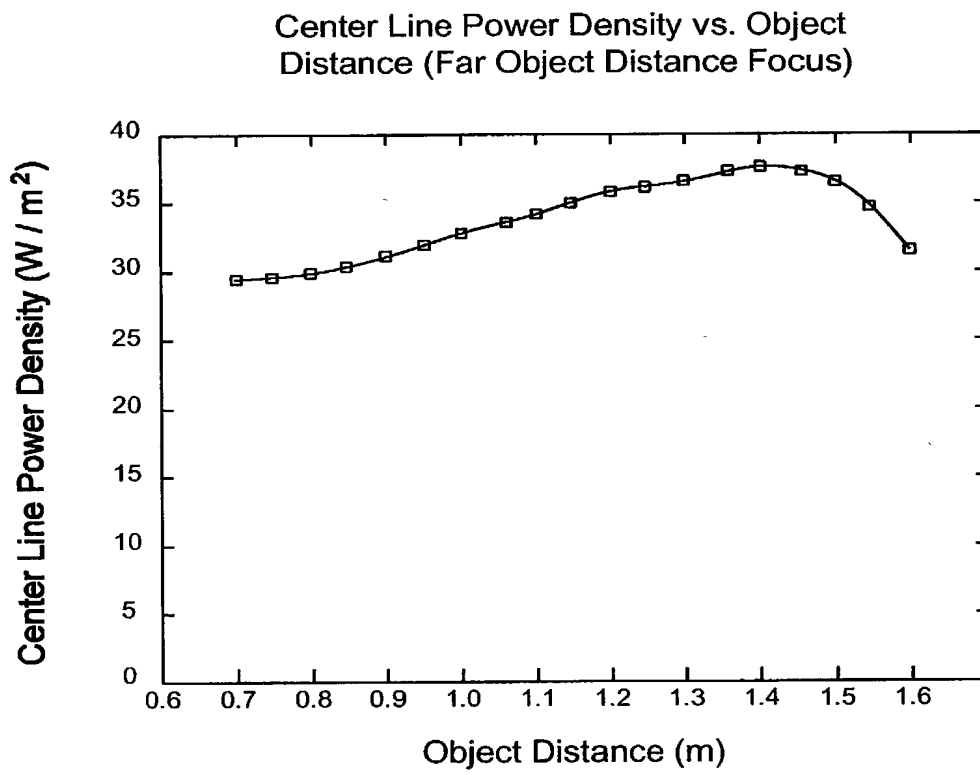


FIG. 1N



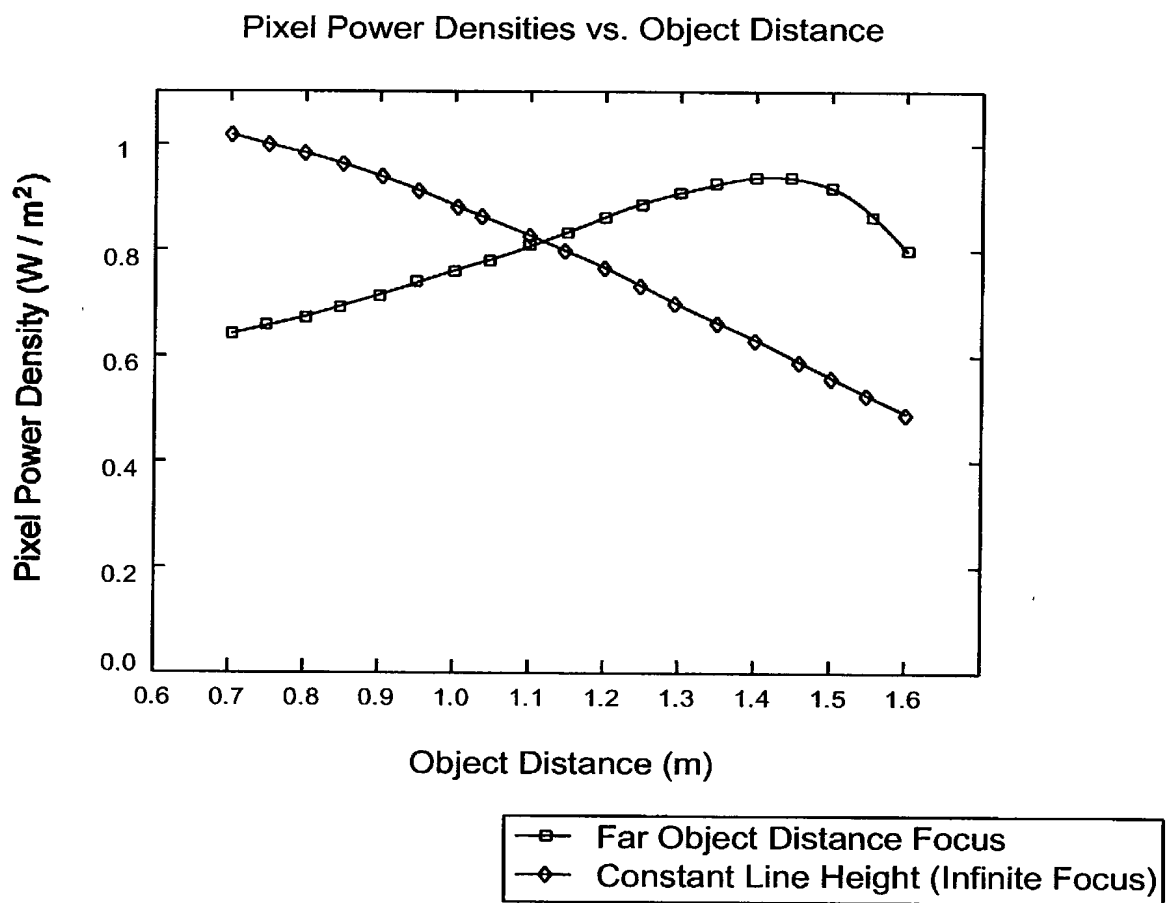


FIG. 10

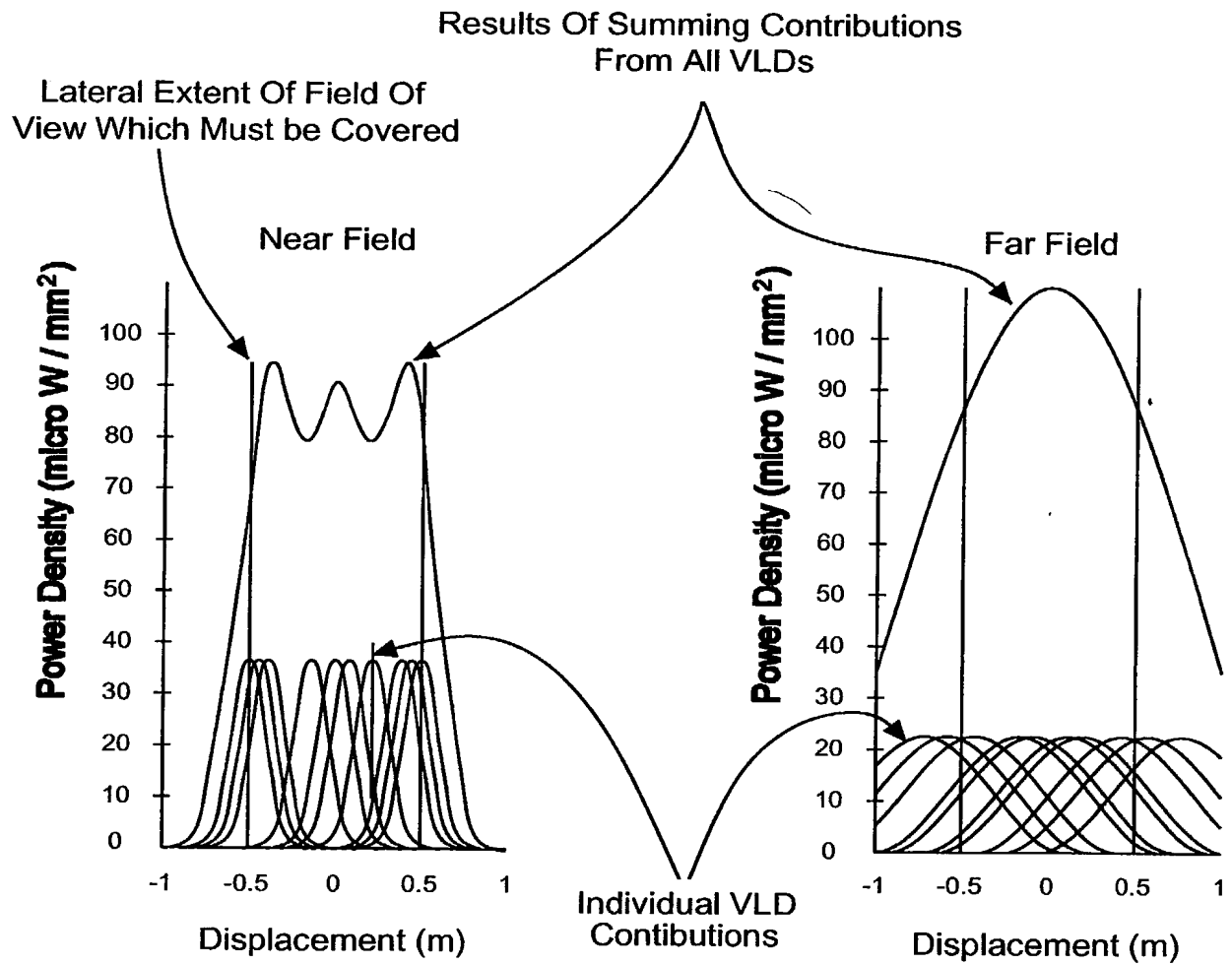
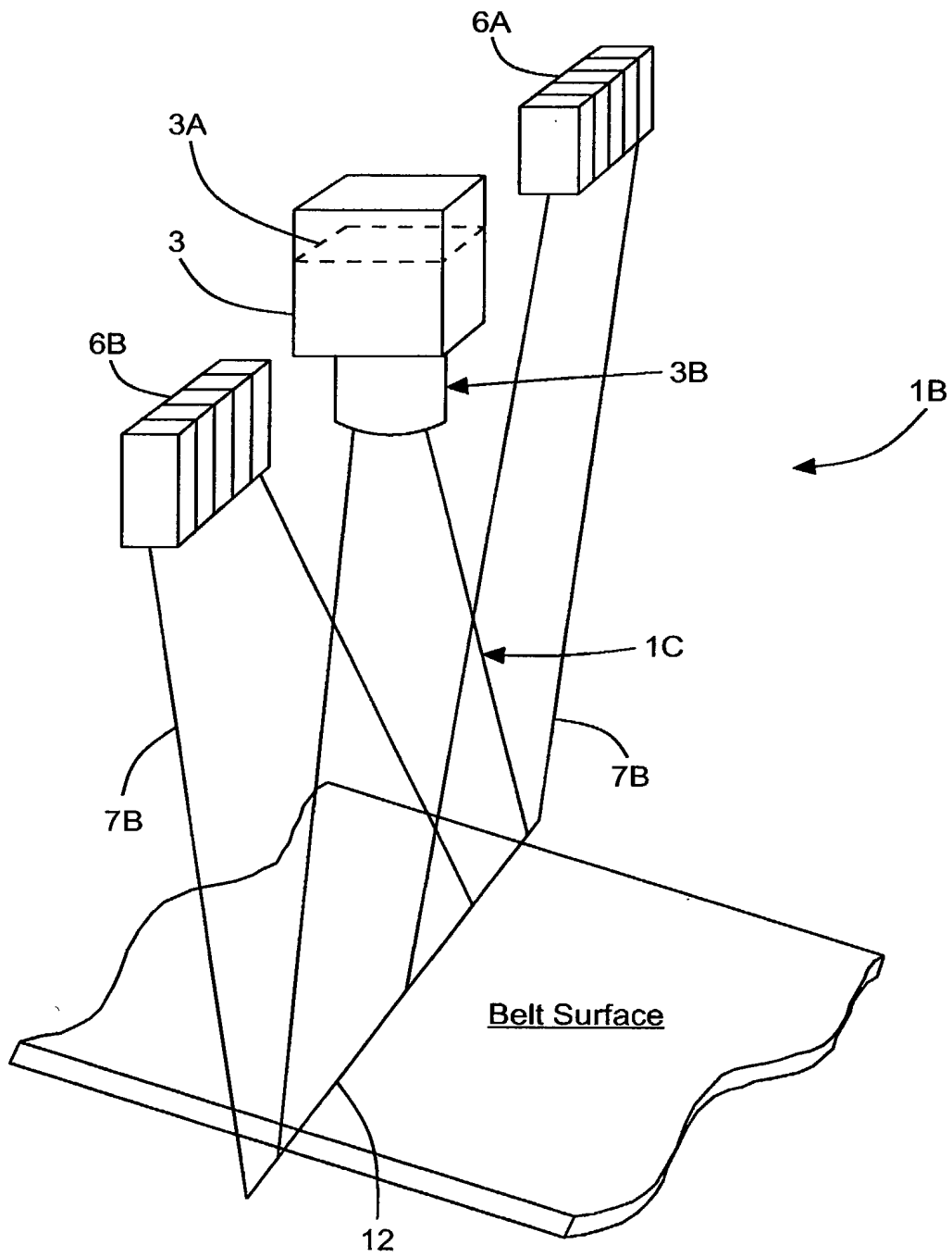


FIG. 1P1

FIG. 1P2





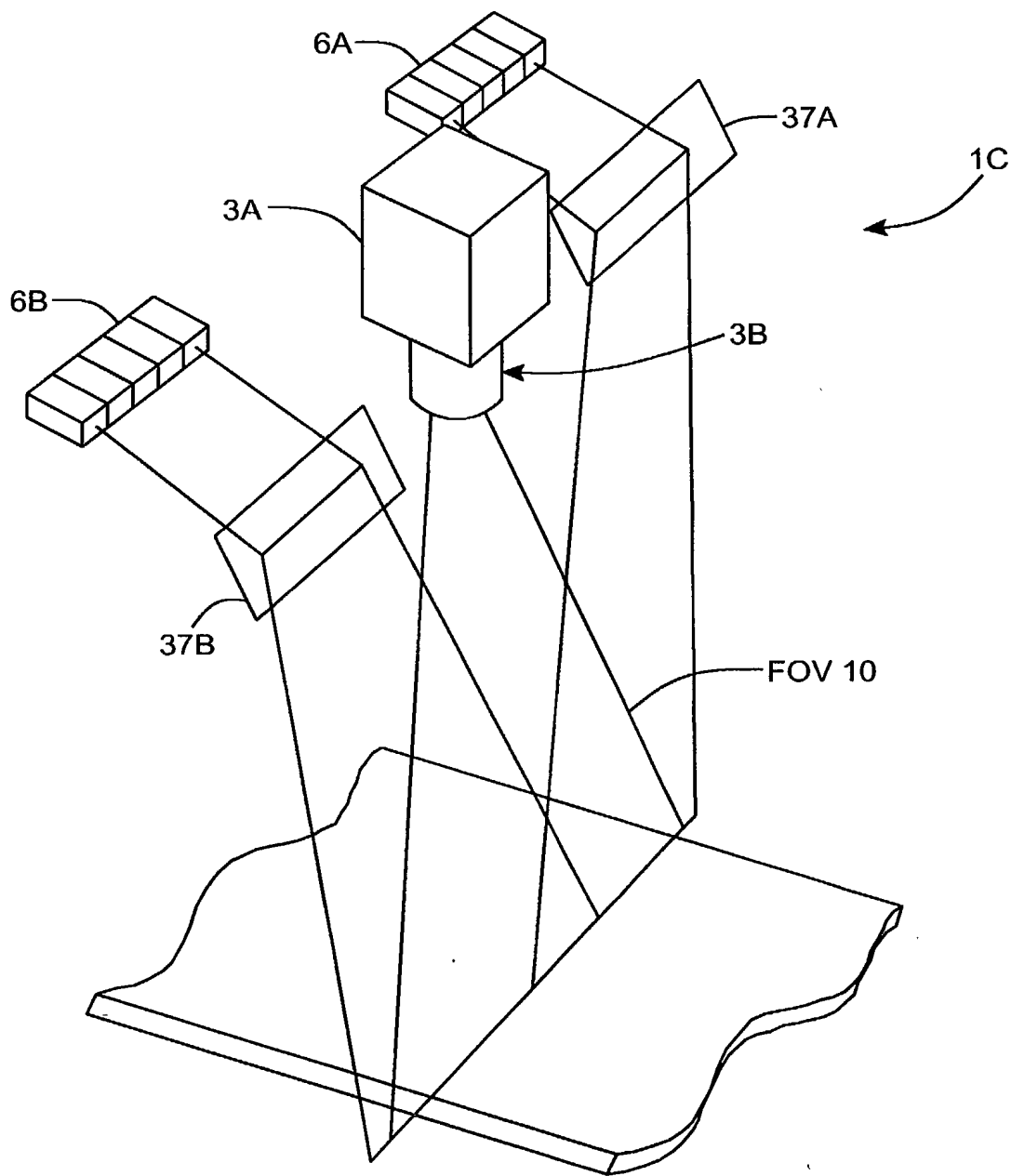
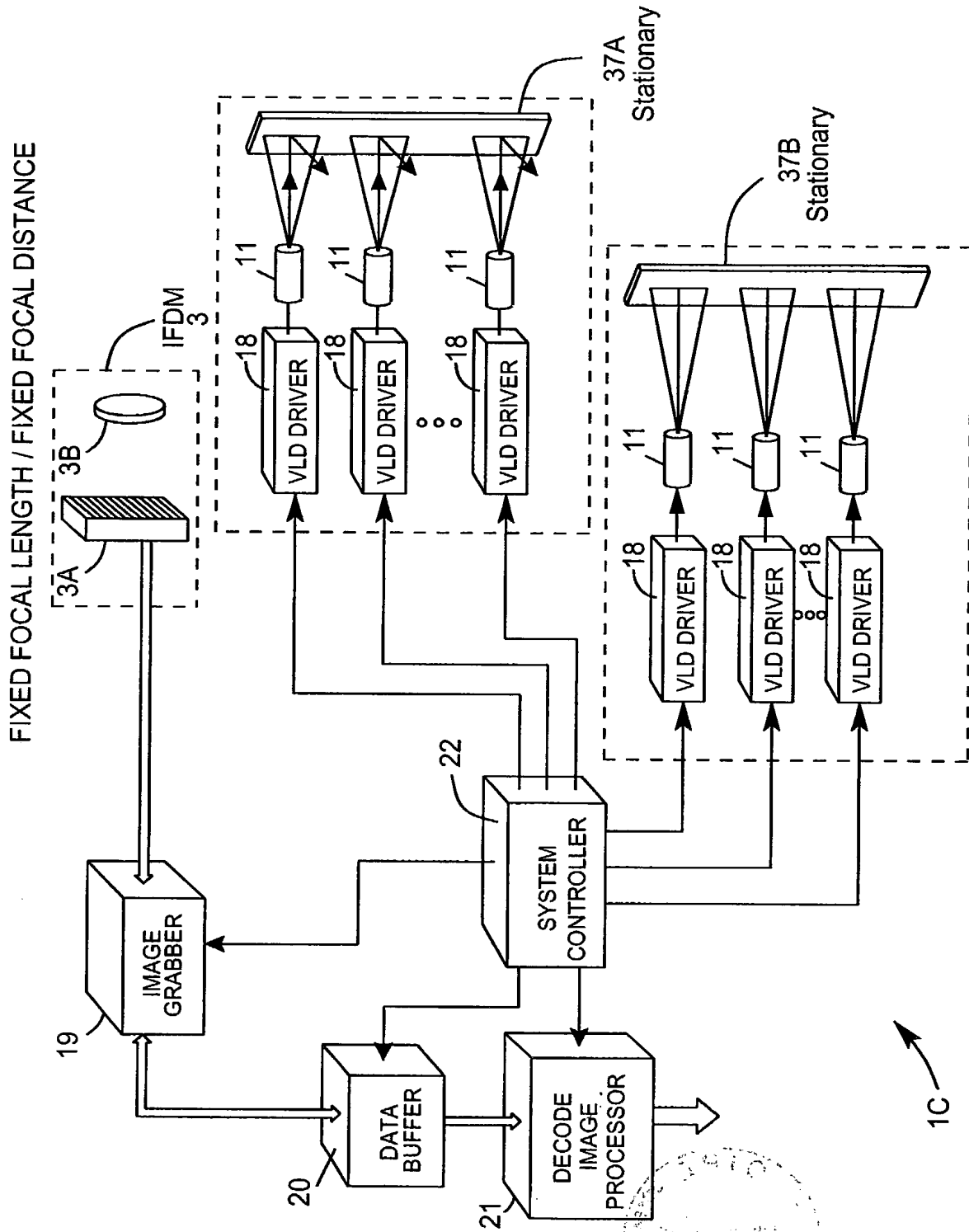


FIG. 1R1





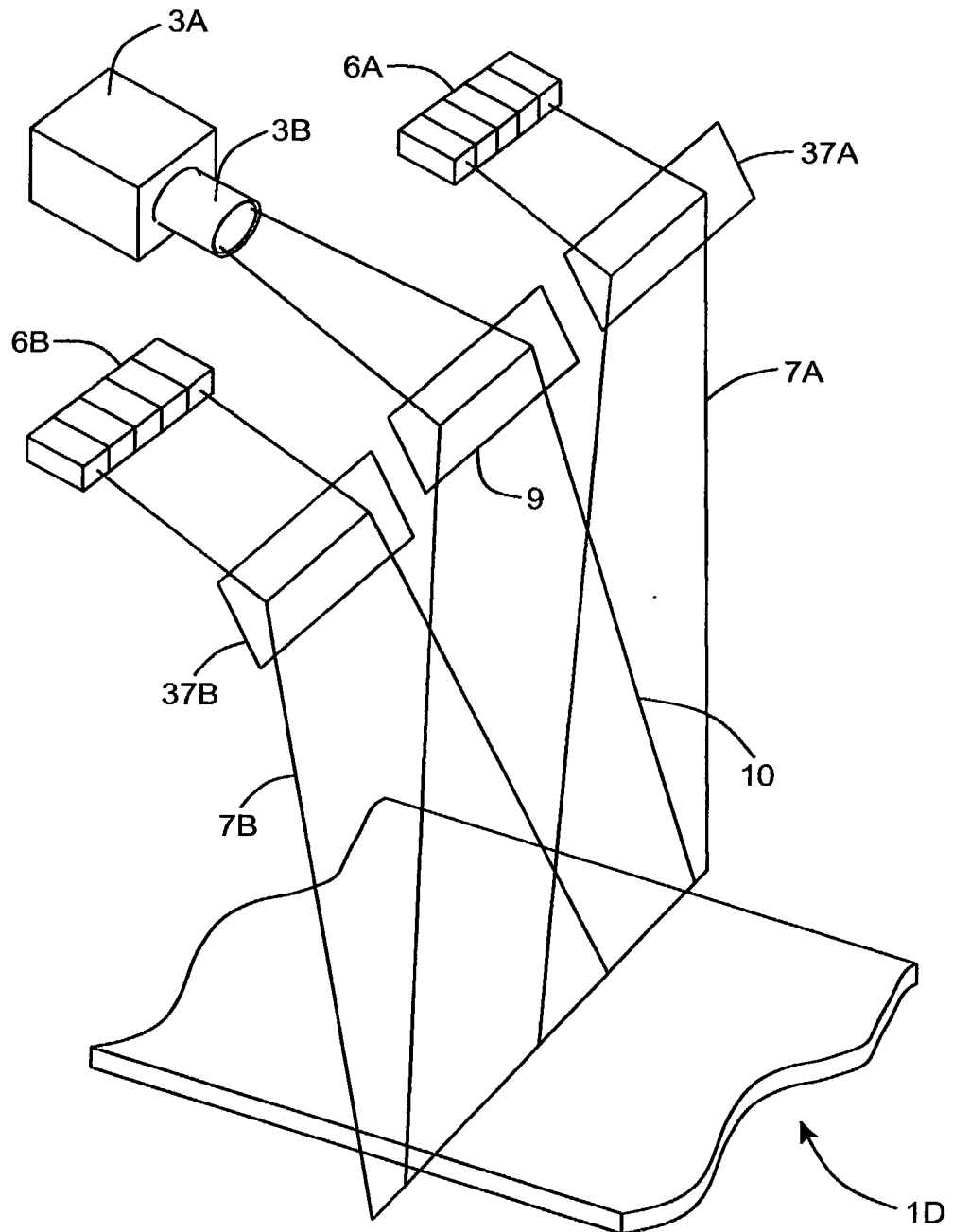
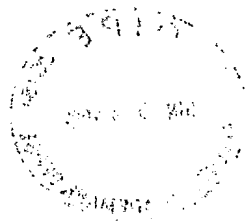


FIG. 1S1



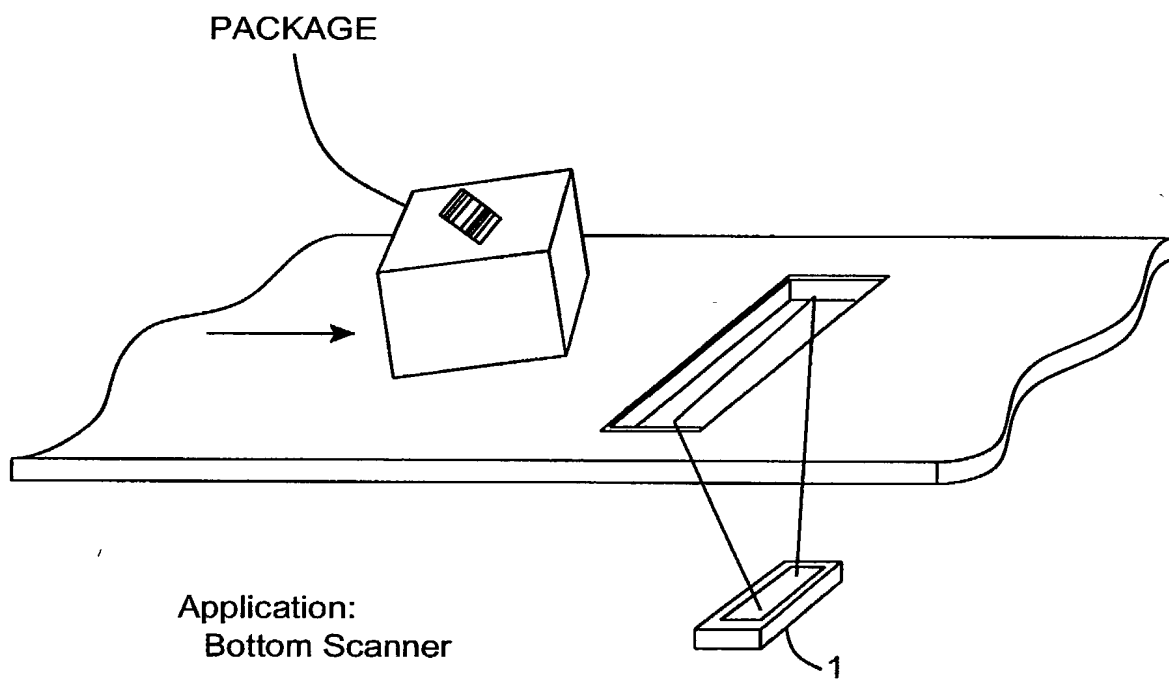


FIG. 1T



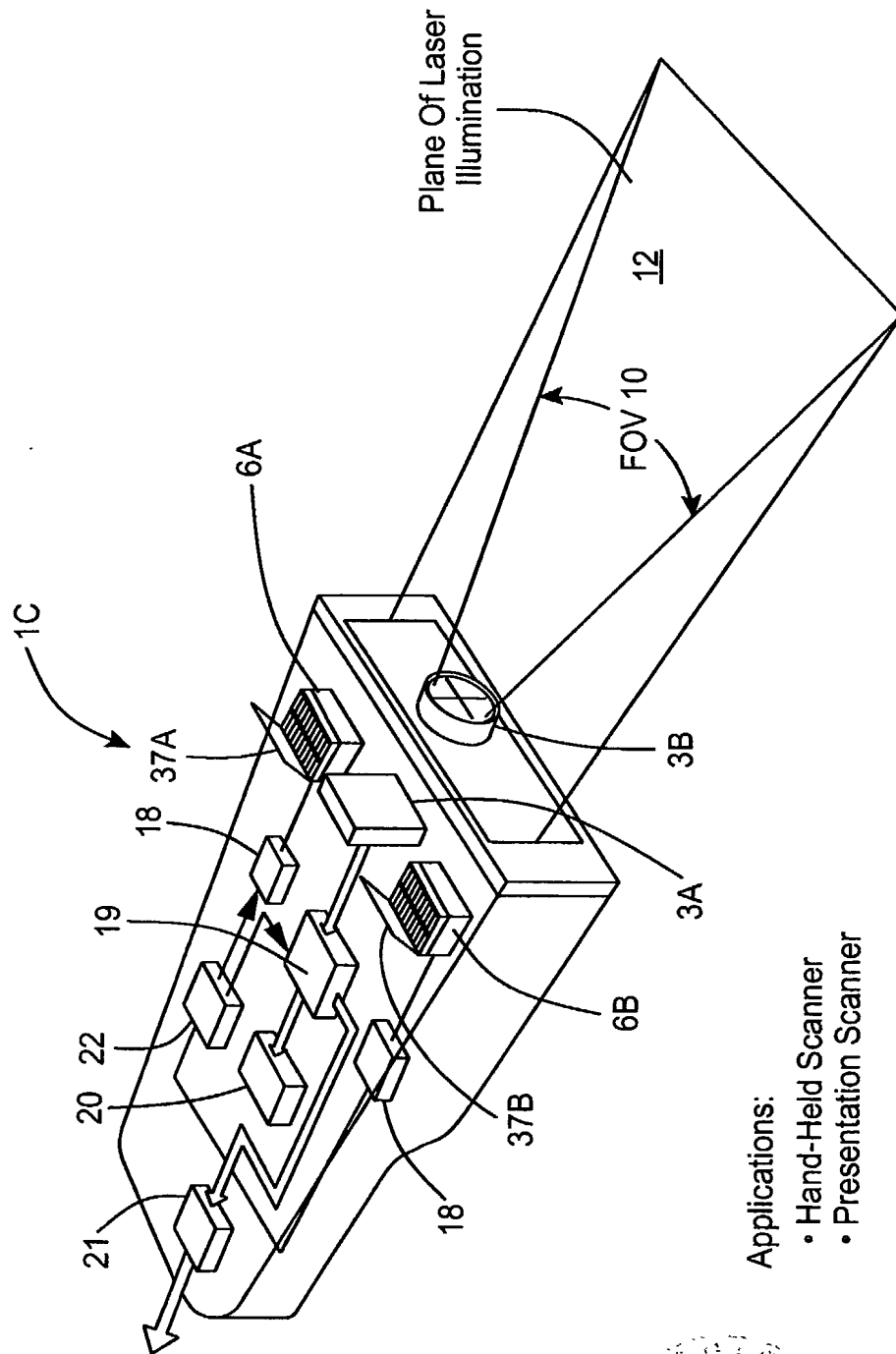
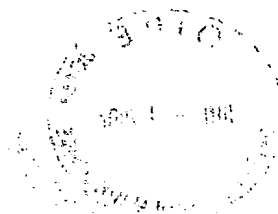
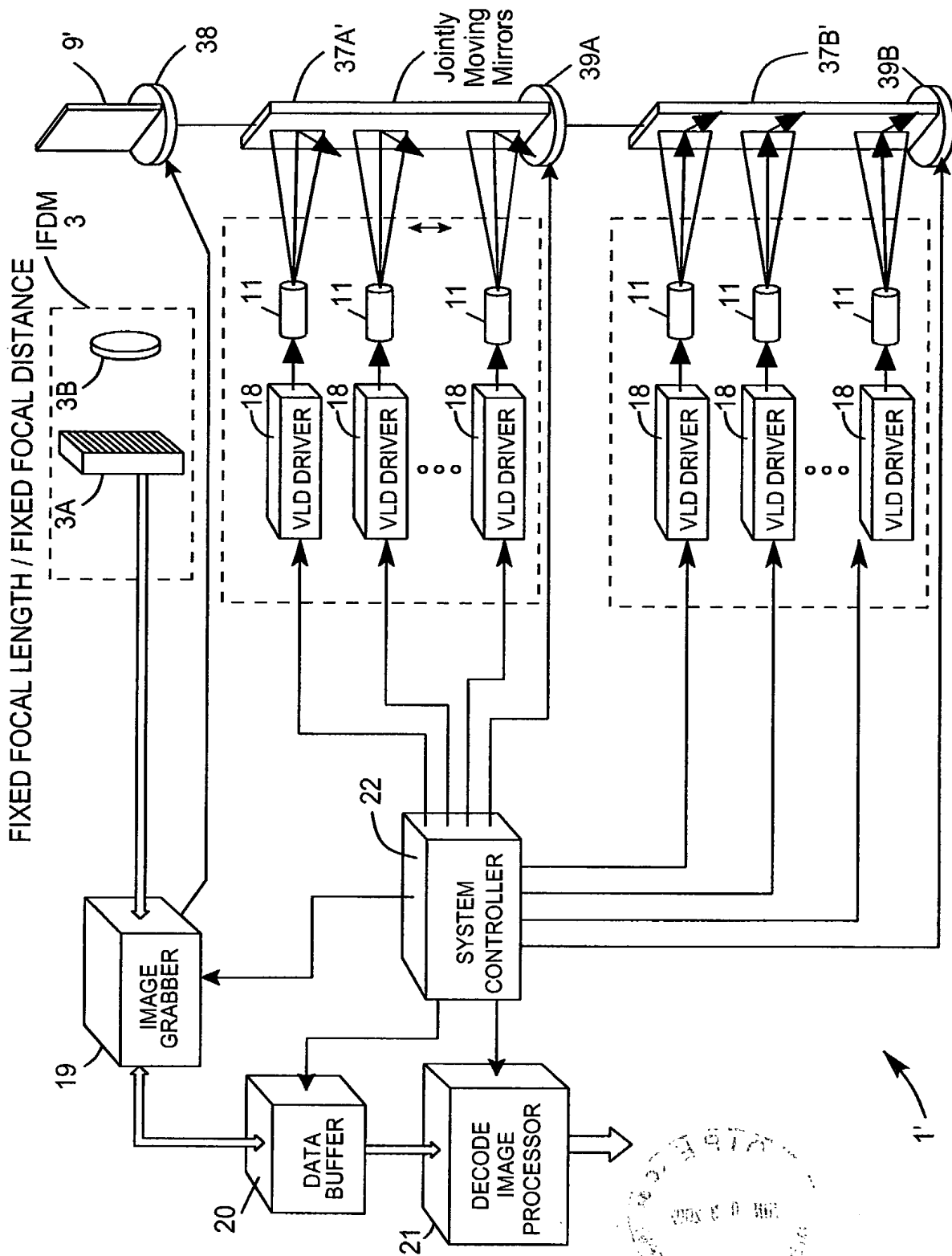


FIG. 1U

Applications:

- Hand-Held Scanner
- Presentation Scanner





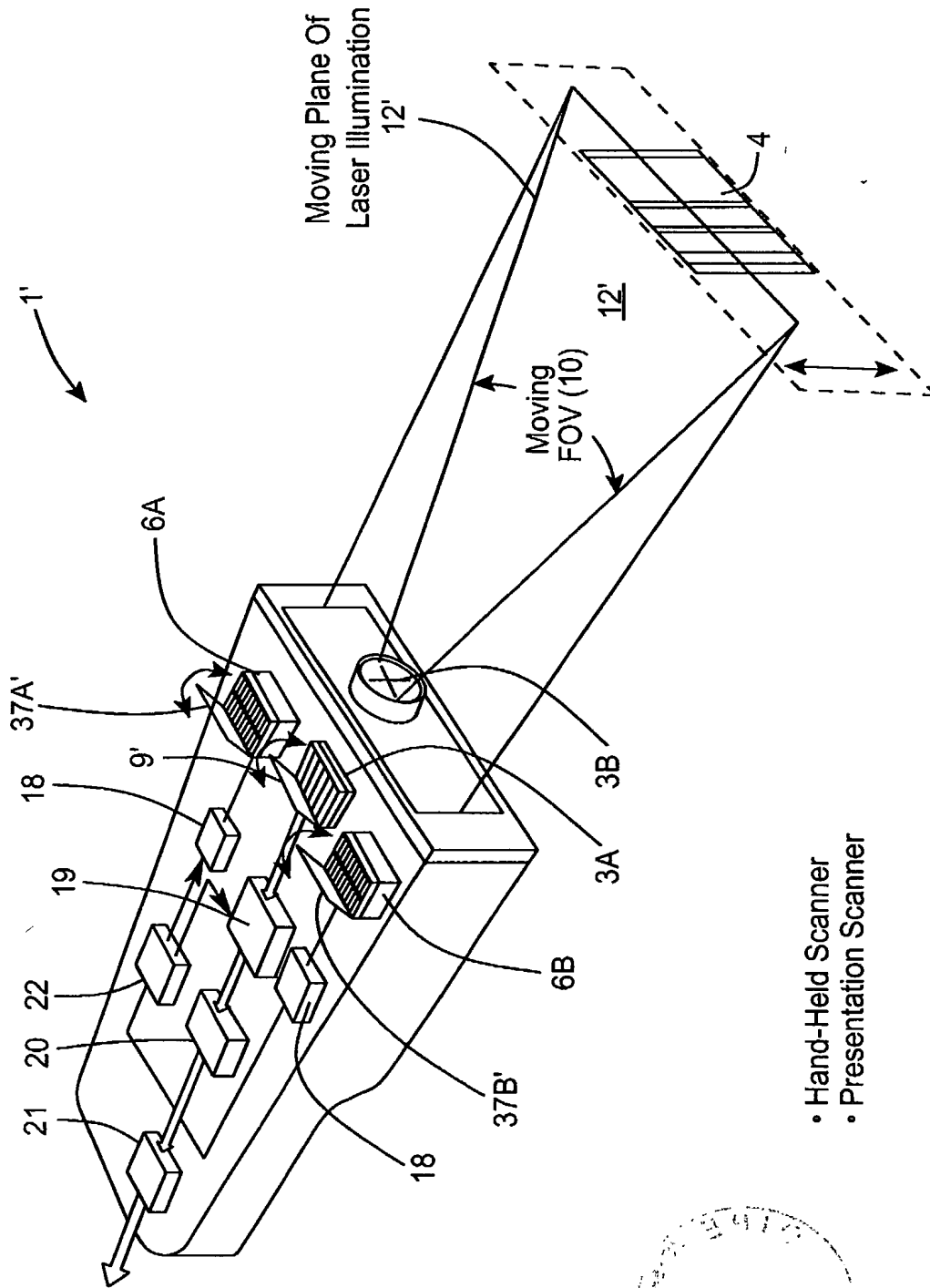
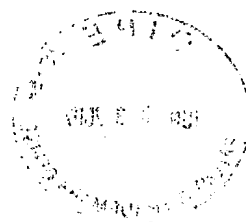
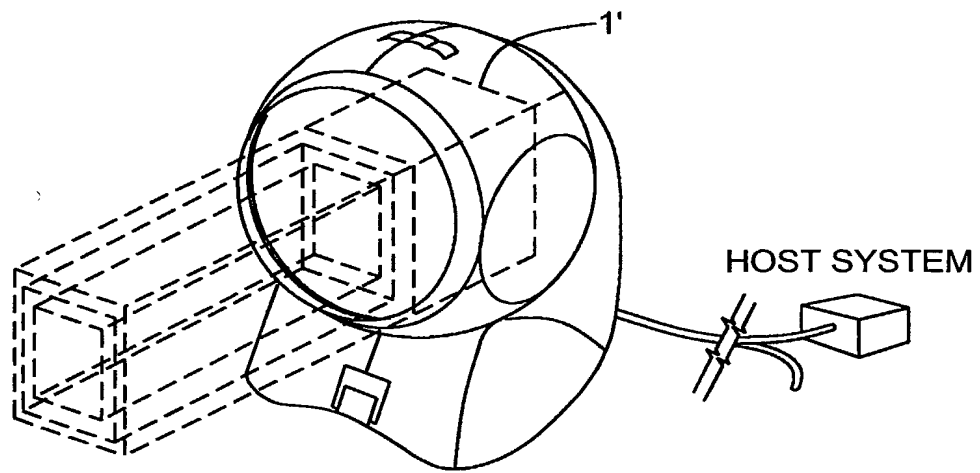


FIG. 1V4

- Hand-Held Scanner
- Presentation Scanner





PRESENTATION TYPE SCANNER

FIG. 1V5

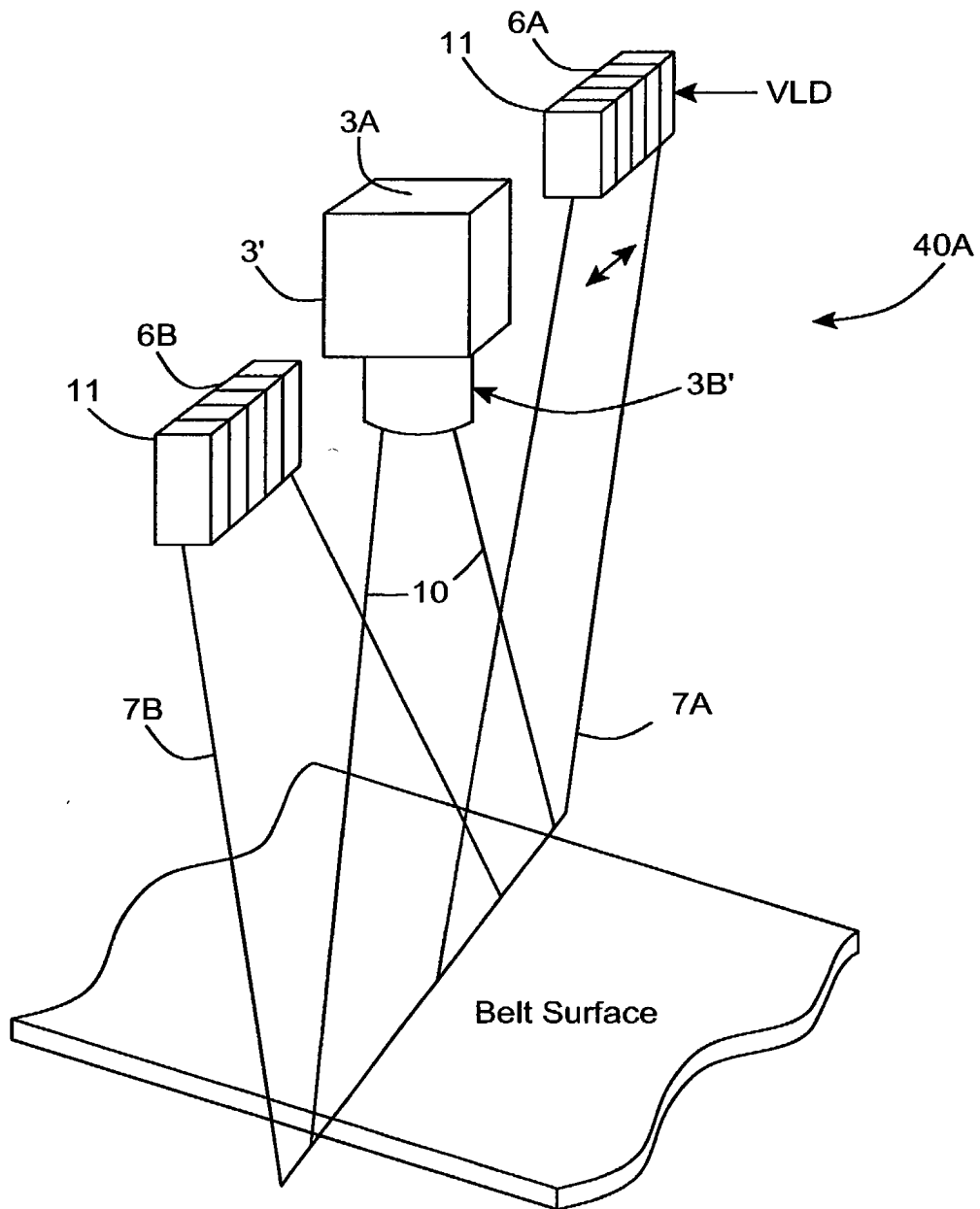
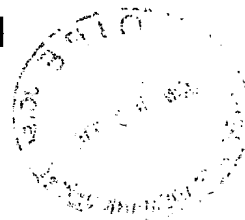


FIG. 2B1



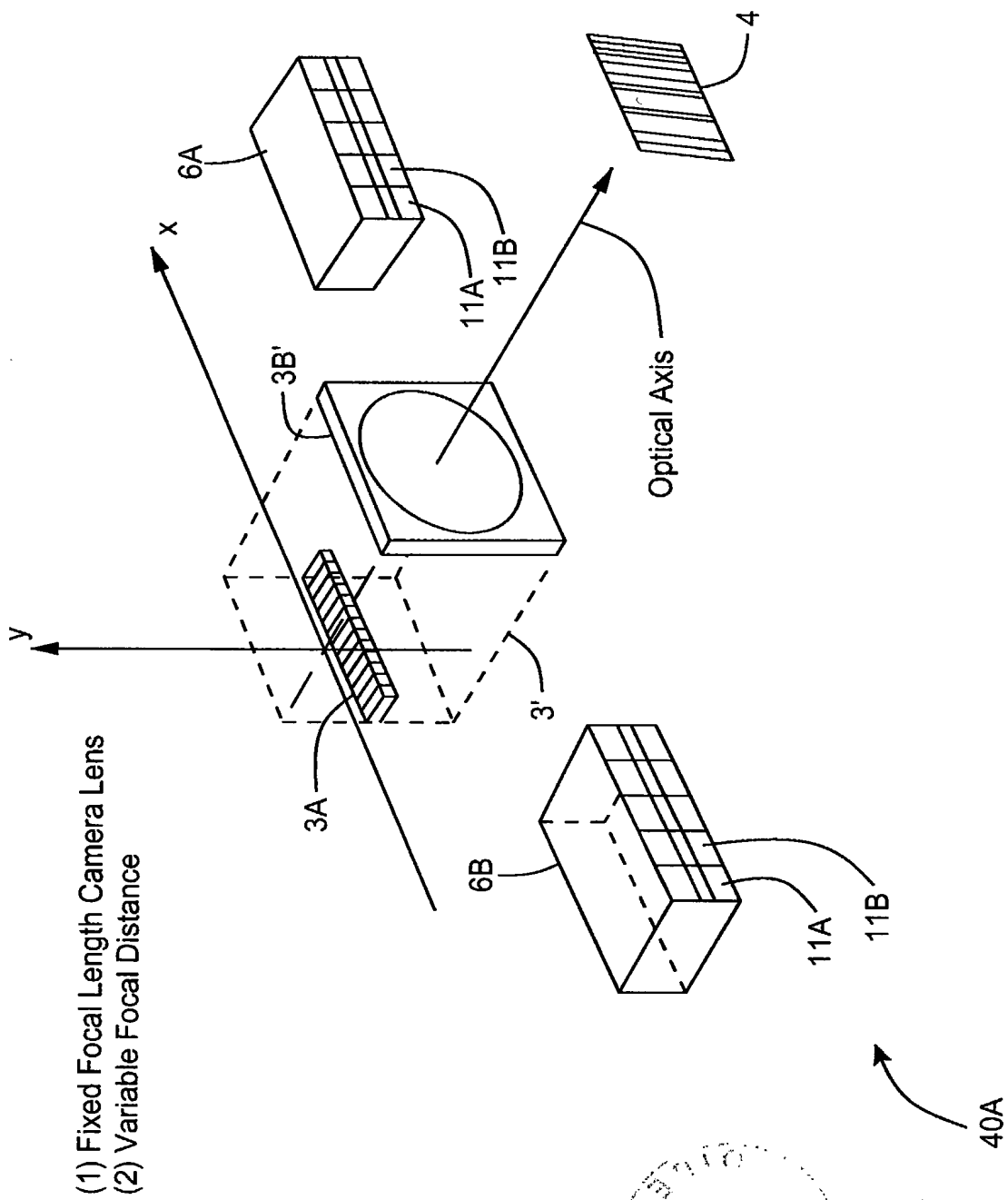


FIG. 2B2

2023/05/11 15:03:23

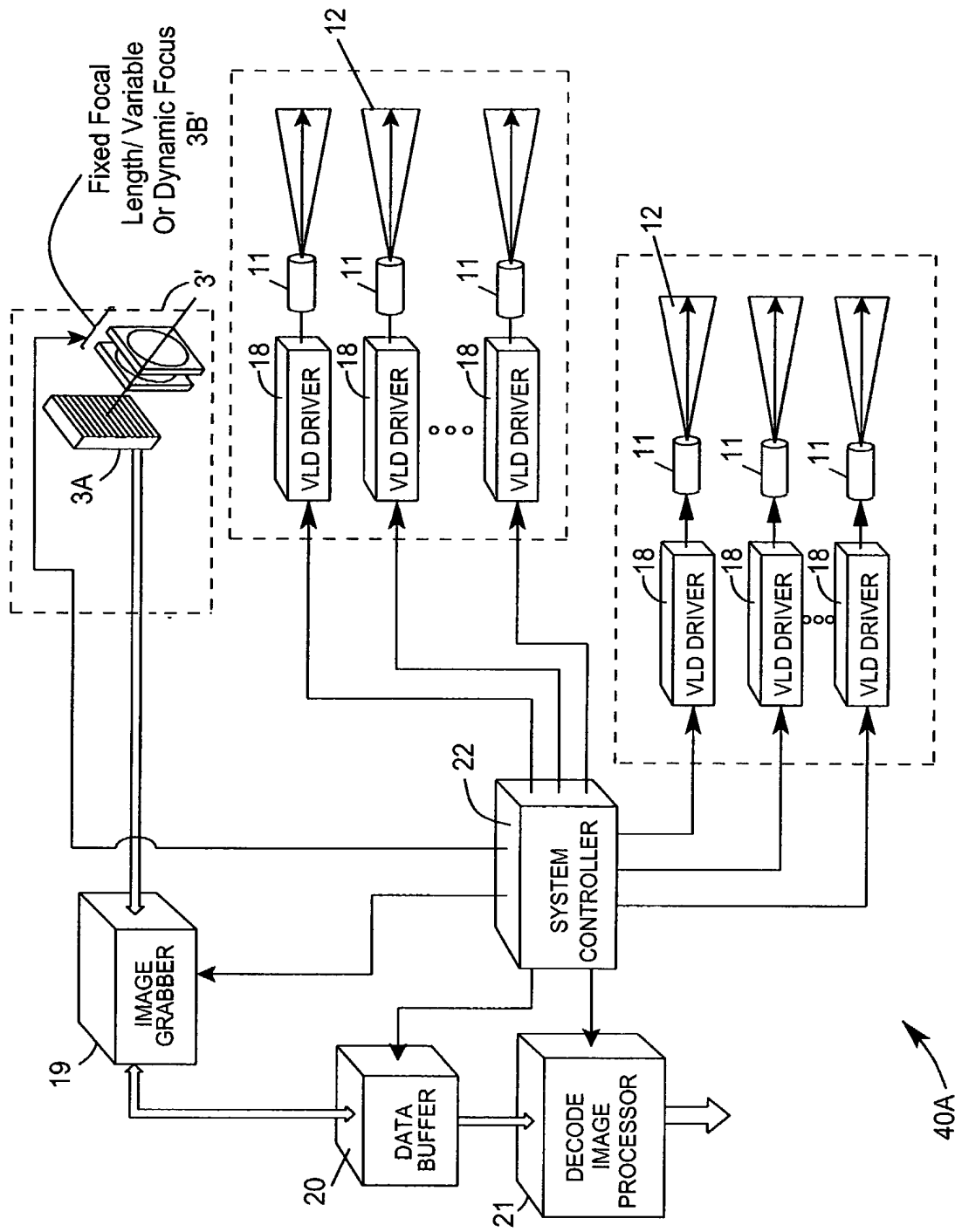


FIG. 2C1

- Fixed Focal Length Imaging Lens
- Variable Or Dynamic Focus Control

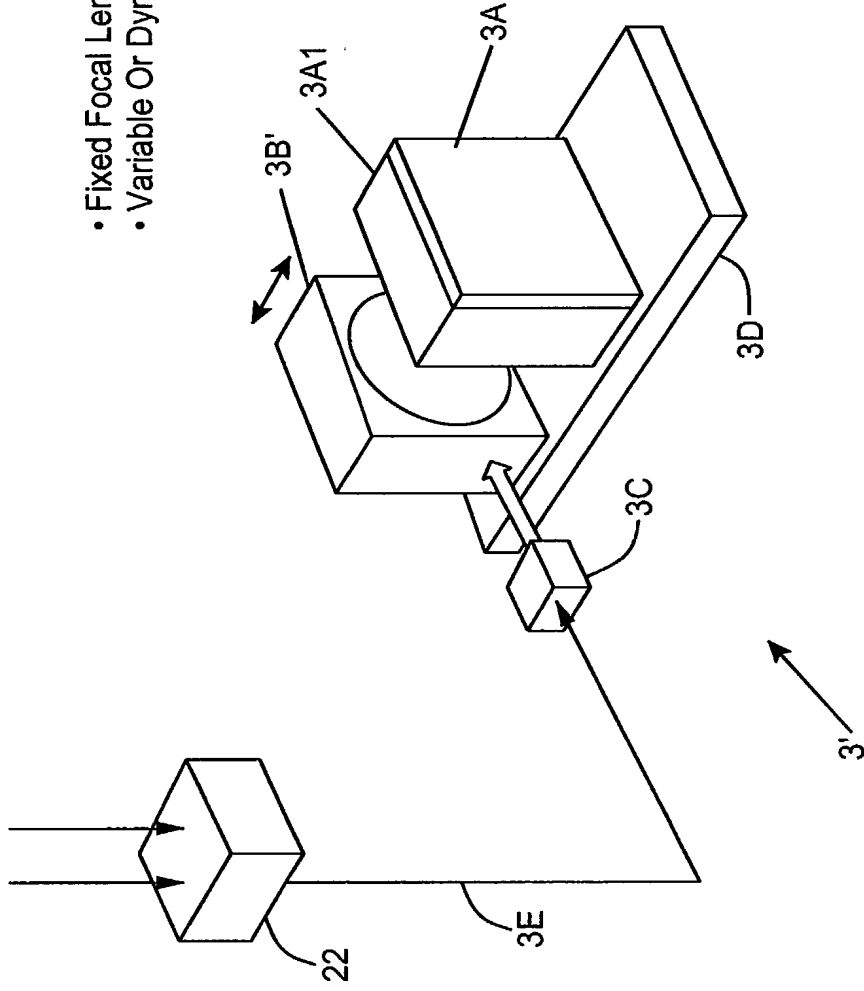
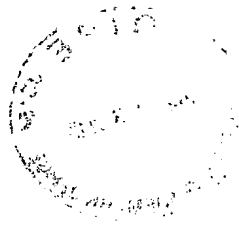


FIG. 2C2



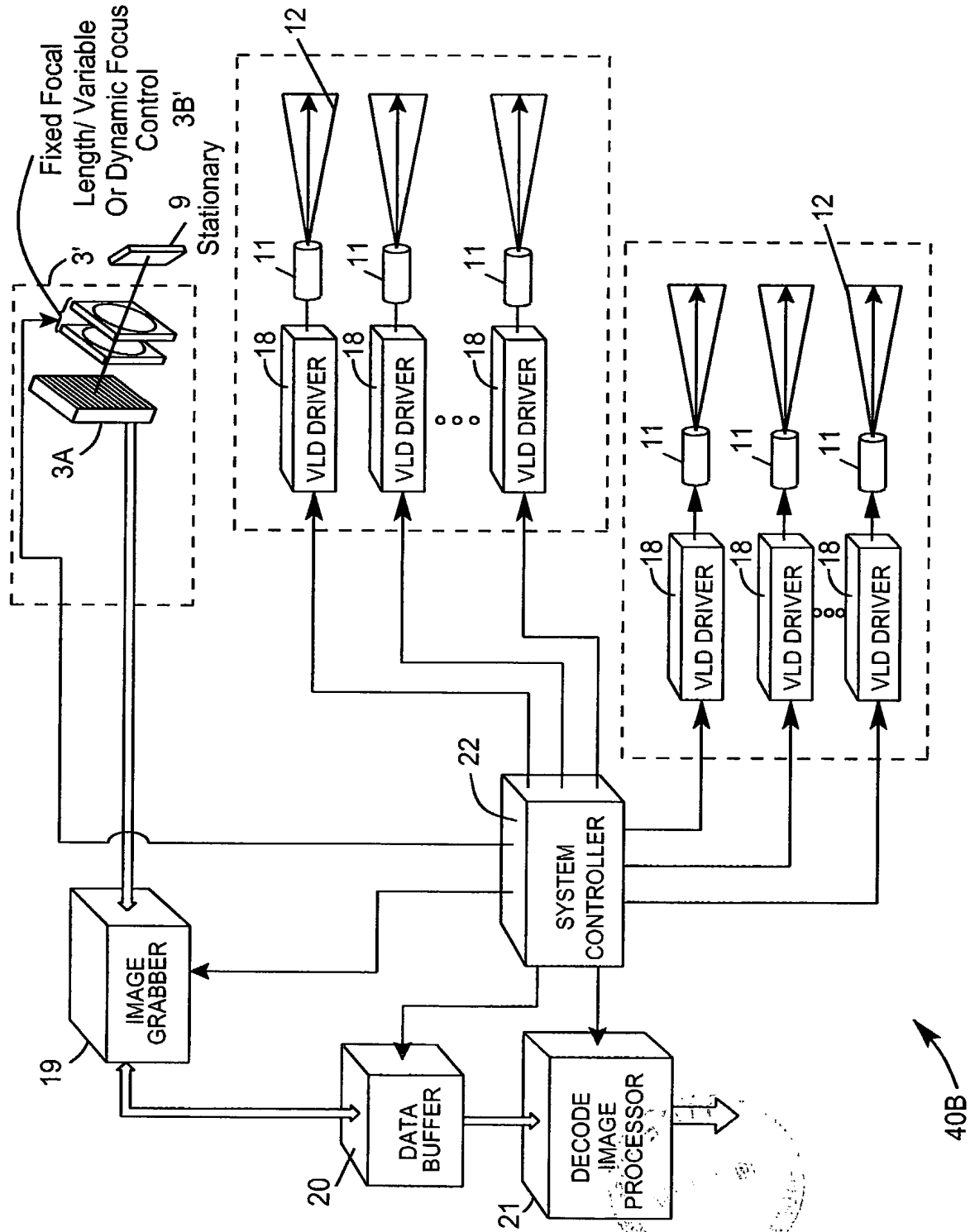


FIG. 2D2

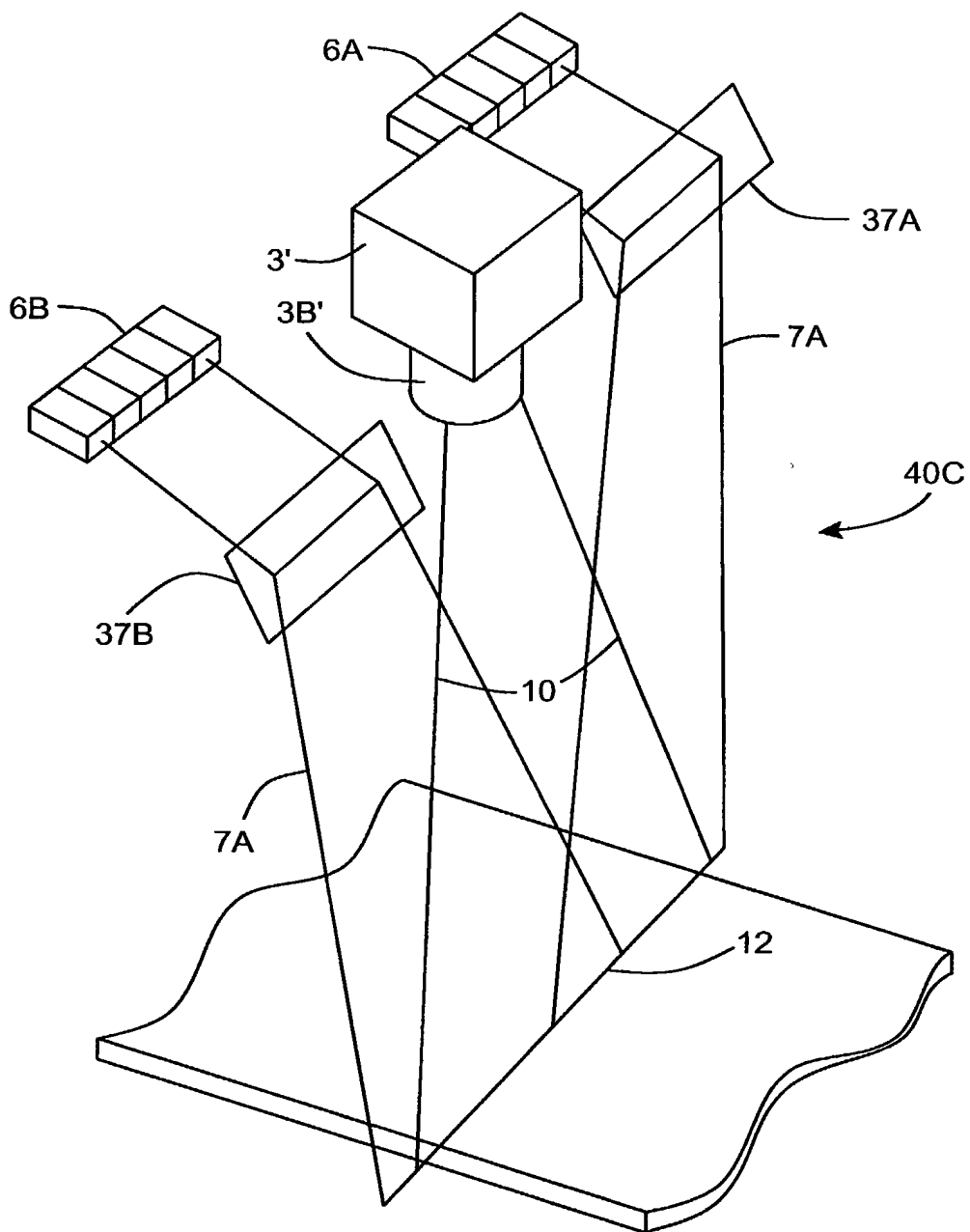


FIG. 2E1



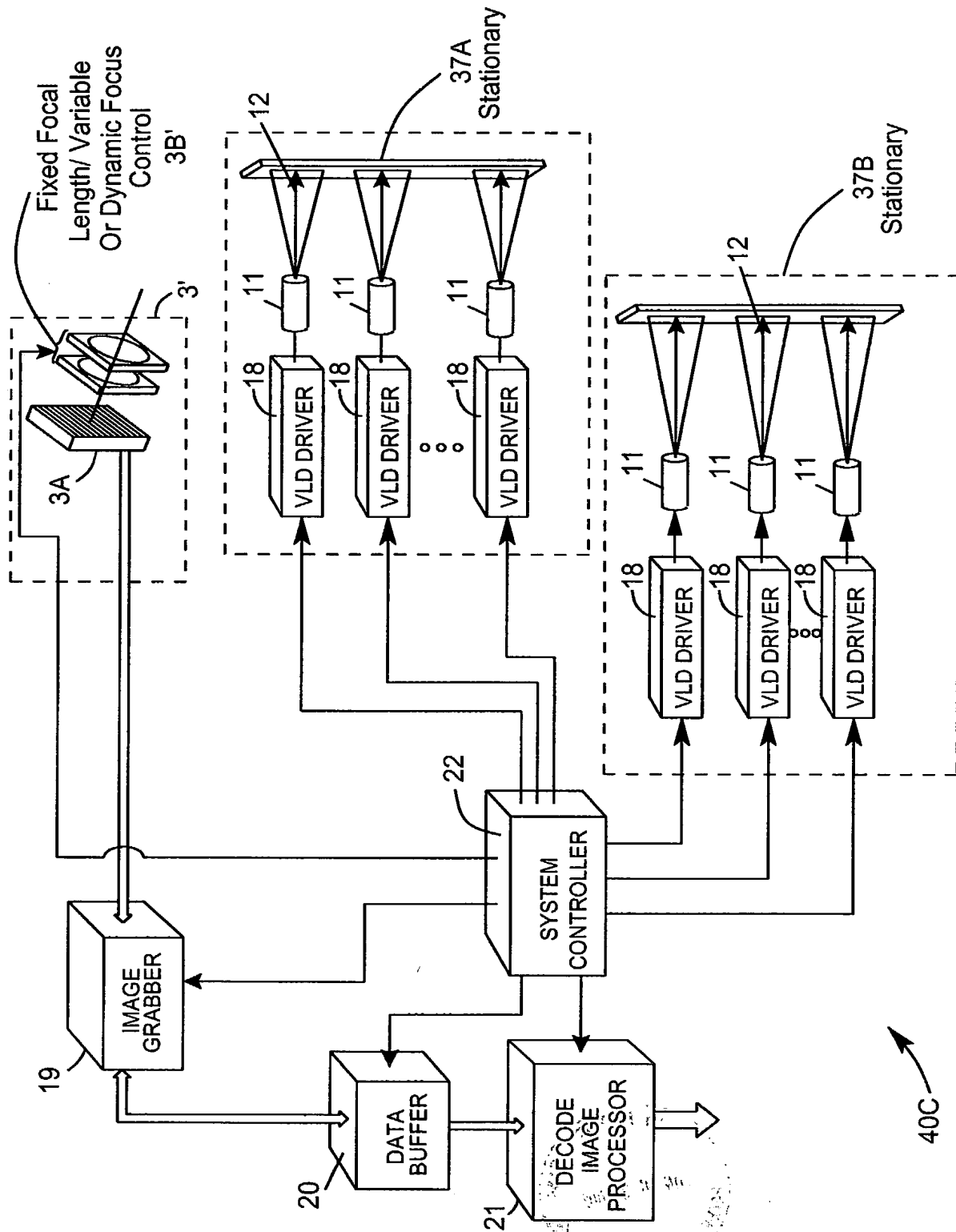


FIG. 2E2

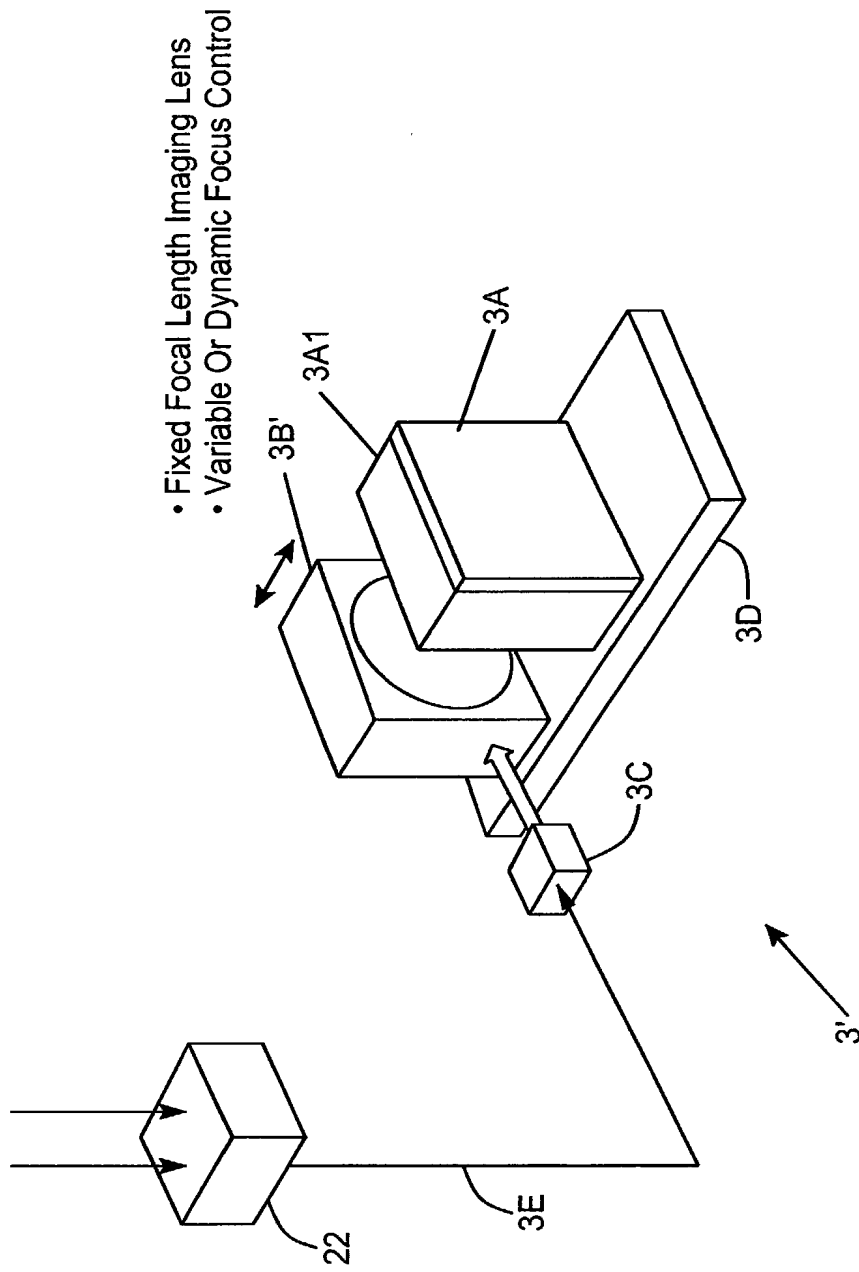


FIG. 2E3



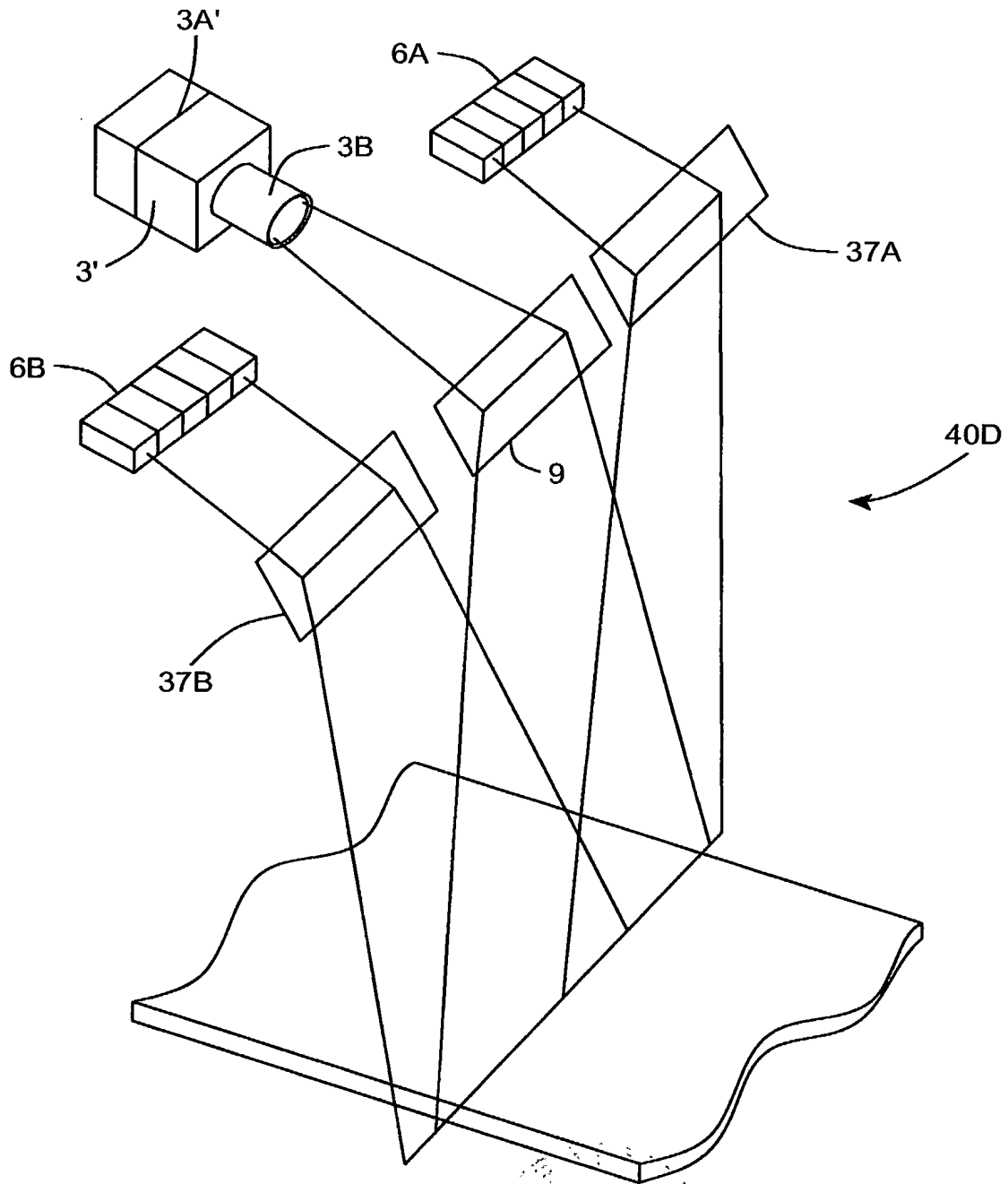


FIG. 2F1

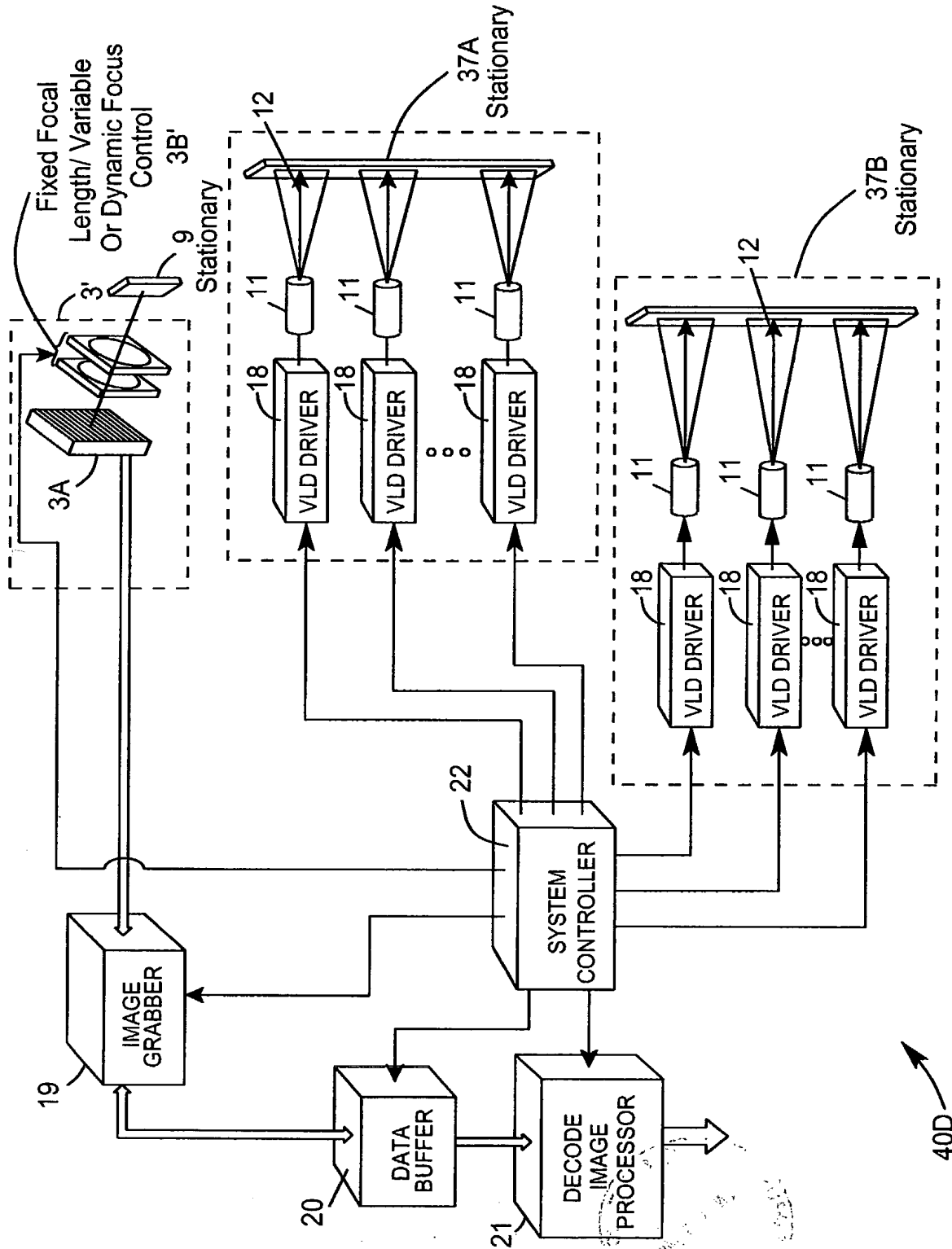


FIG. 2F2

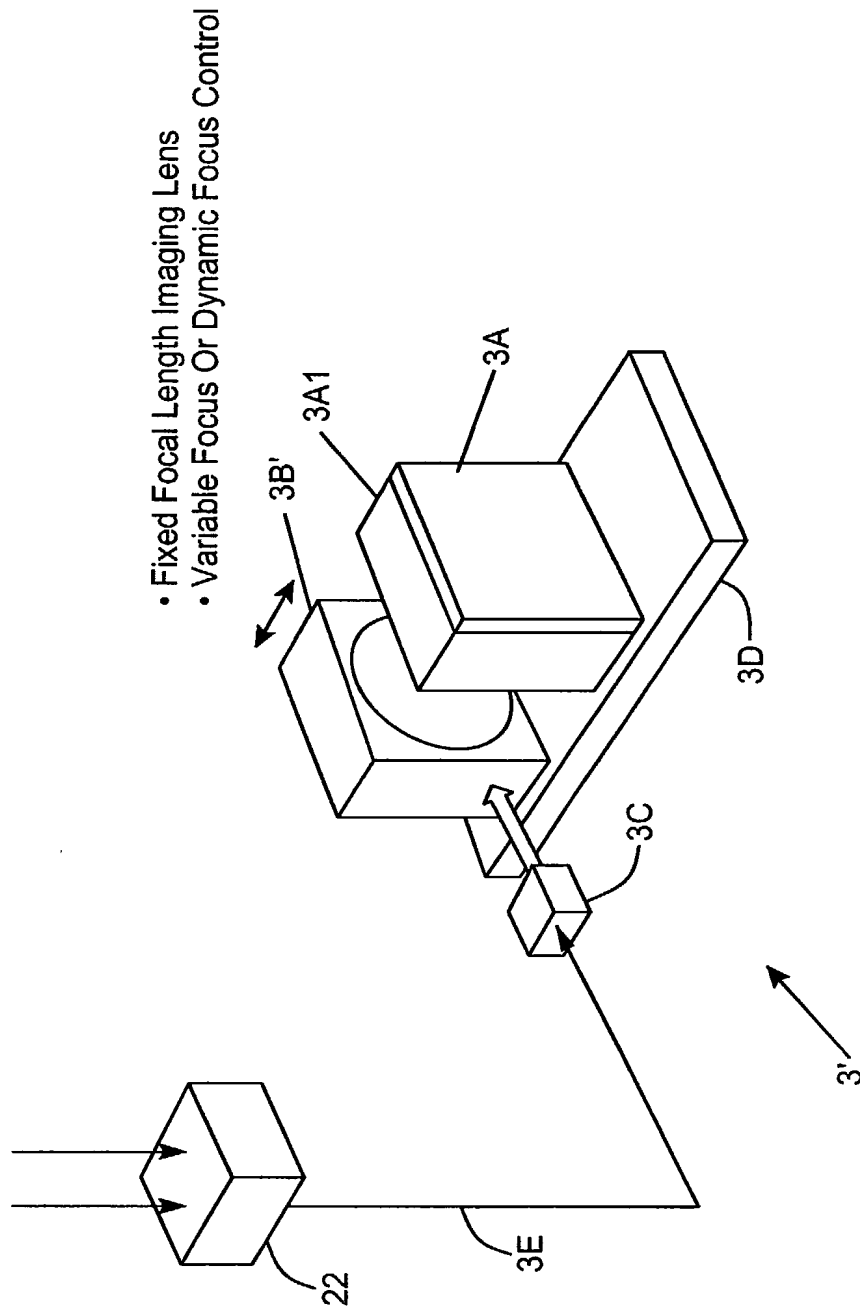


FIG. 2F3

Top Conveyor Scanner:

- Fixed Focal Length Imaging Lens
- Variable Focal Distance Control

Side Conveyor Scanner:

- Fixed Focal Length Imaging Lens
- Dynamic Focal Distance Control

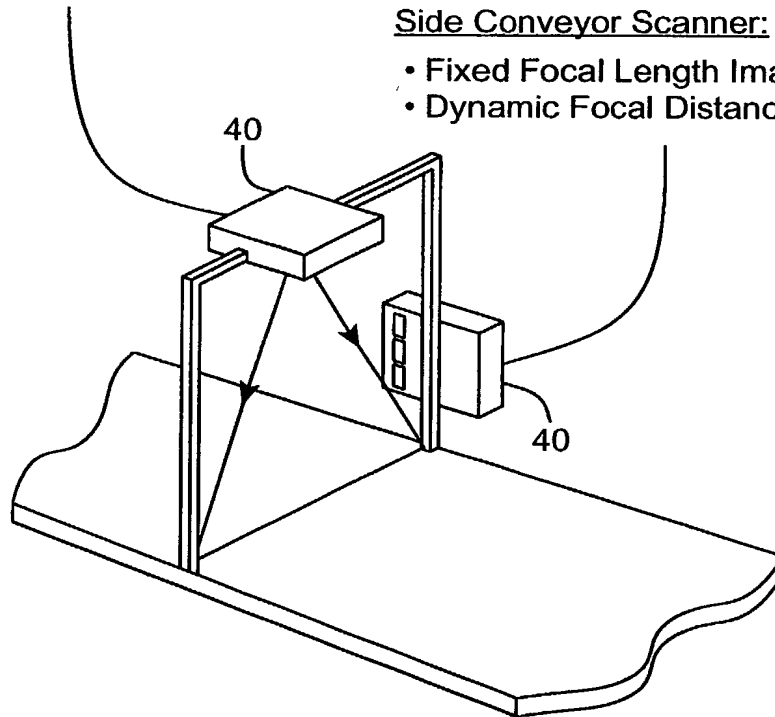


FIG. 2G



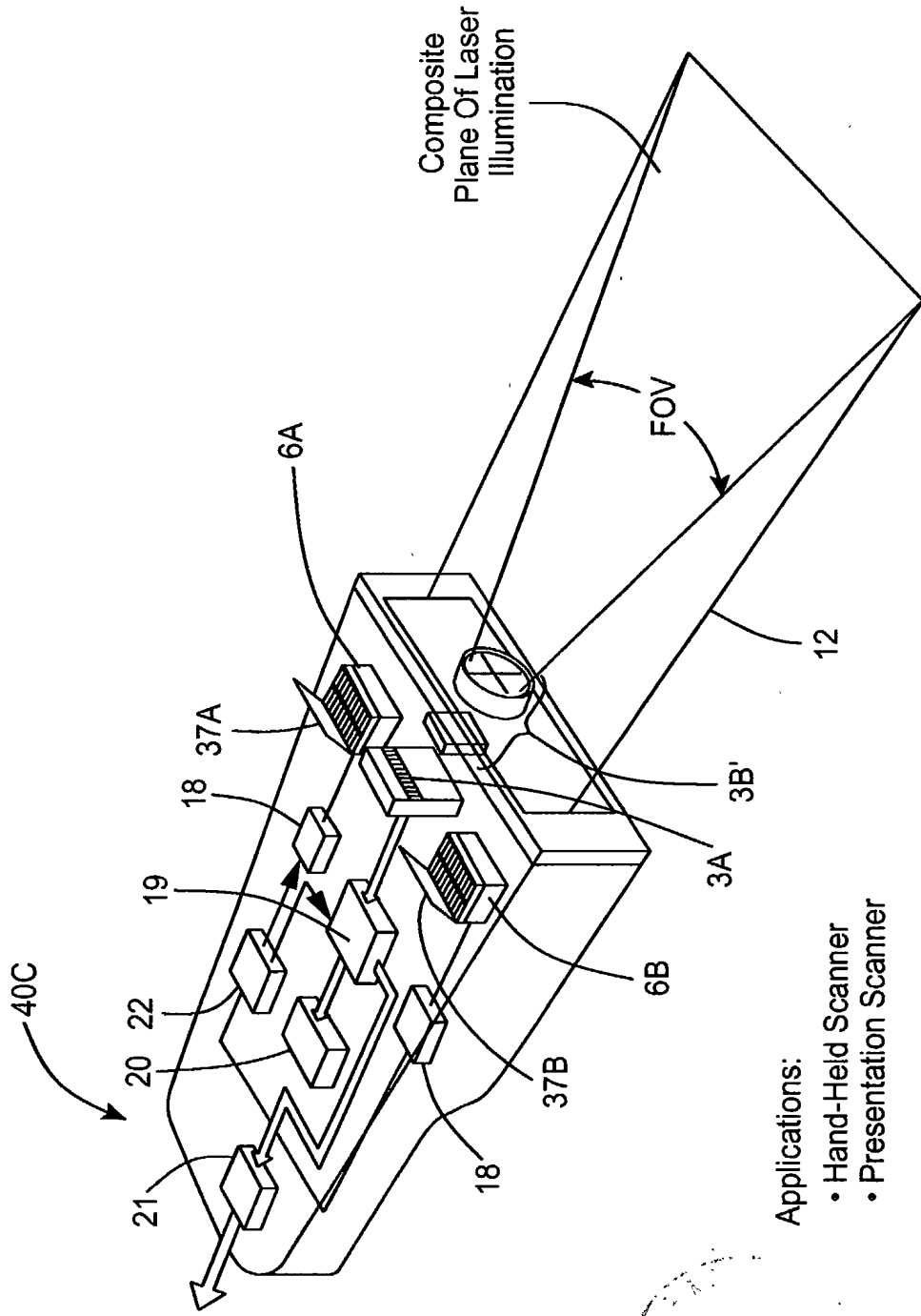


FIG. 2H

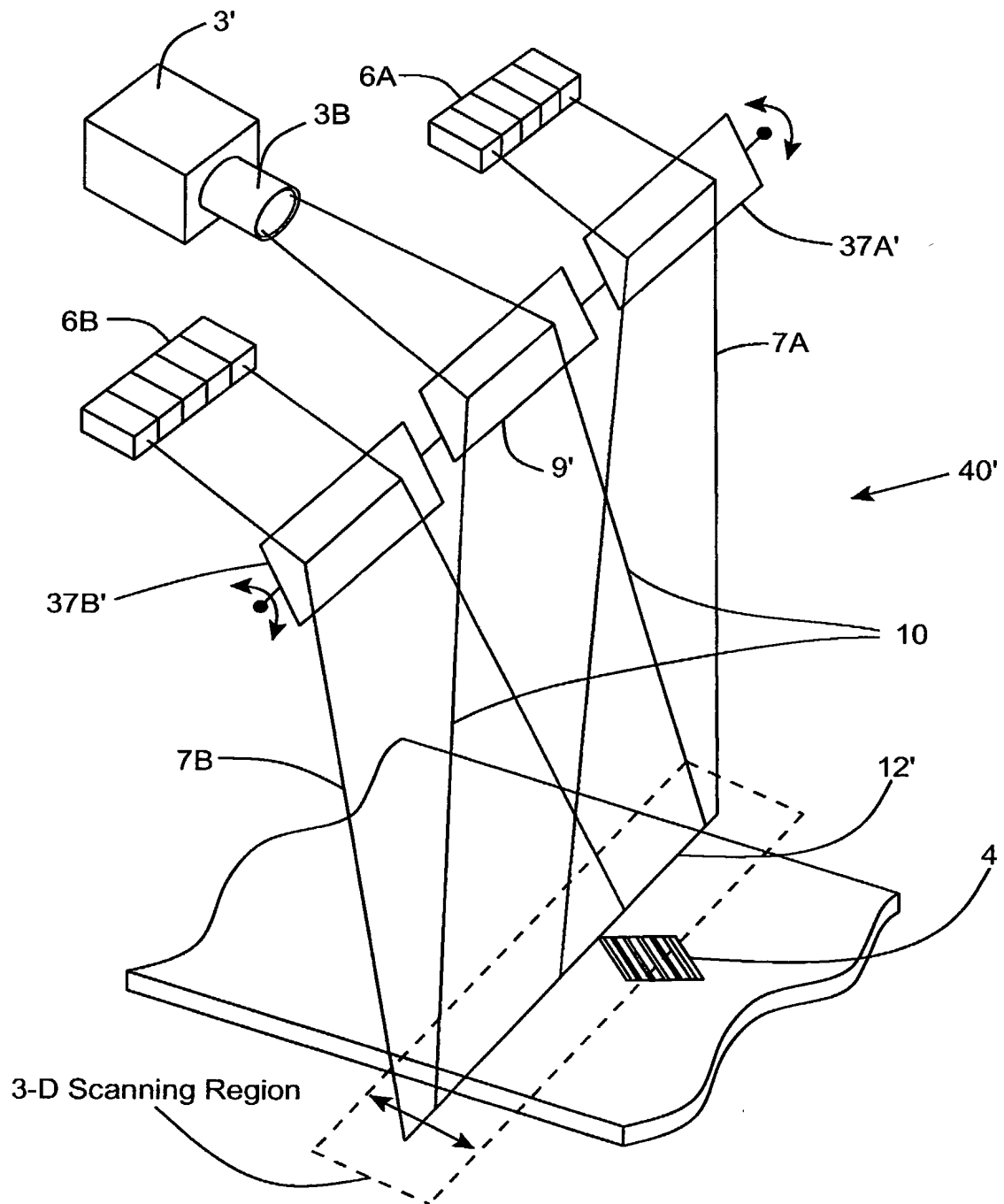


FIG. 212

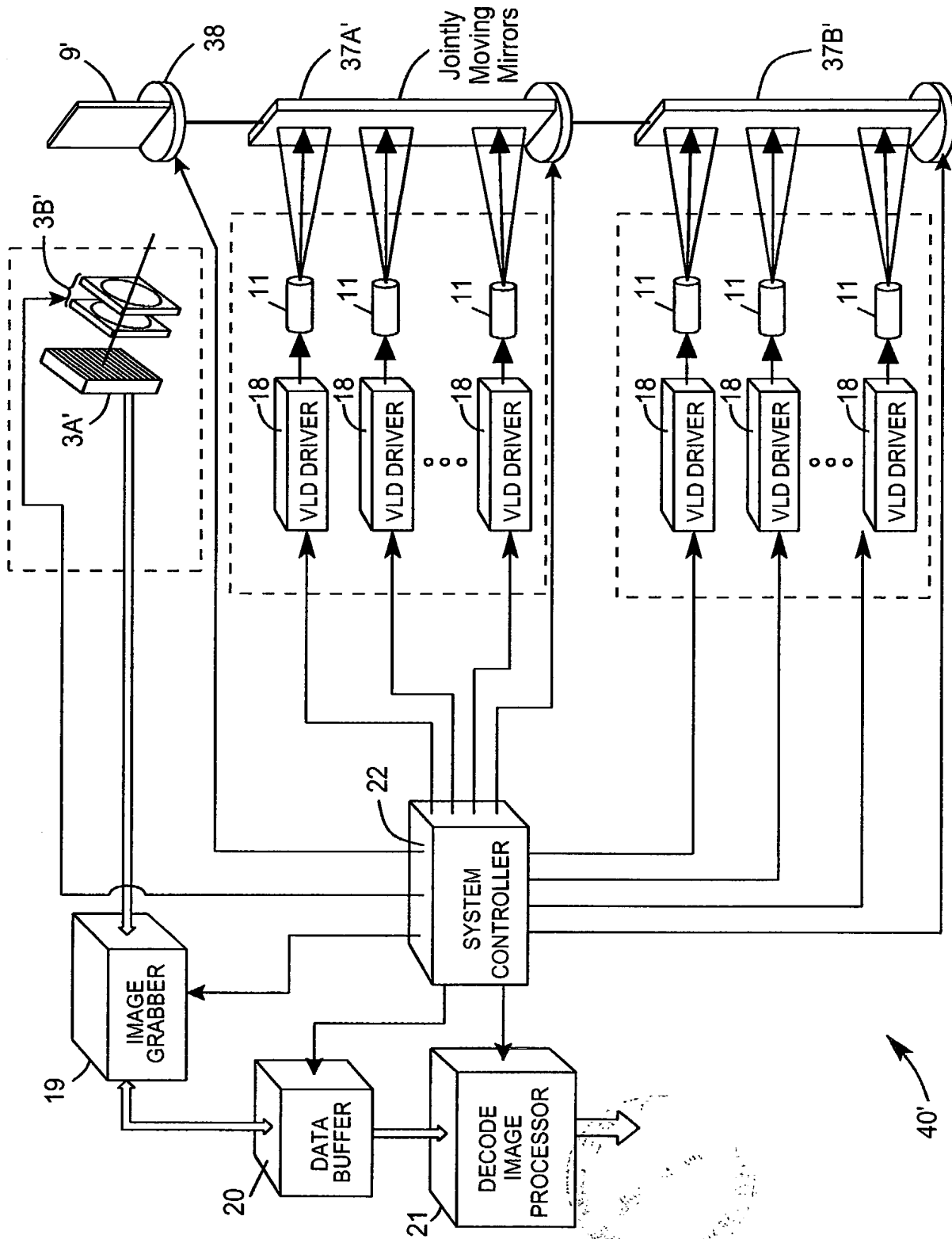


FIG. 213

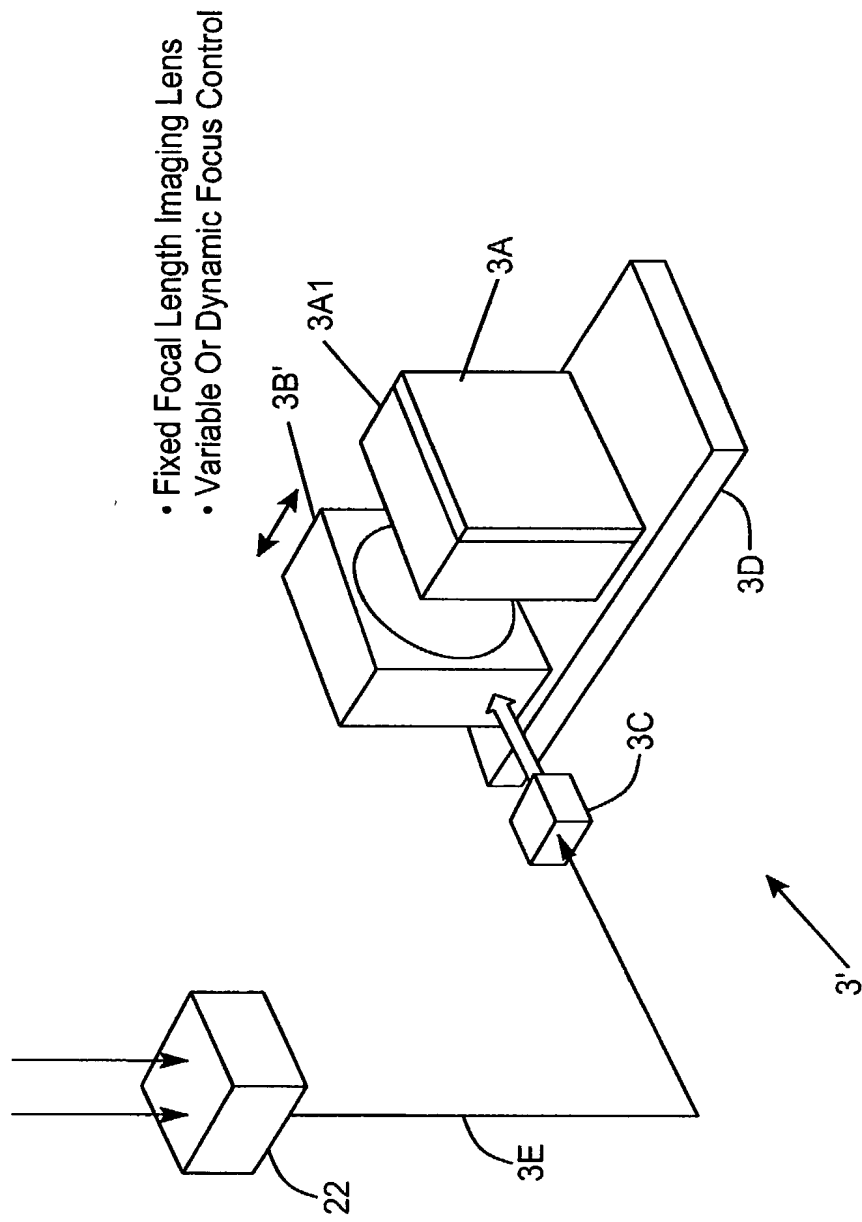


FIG. 214

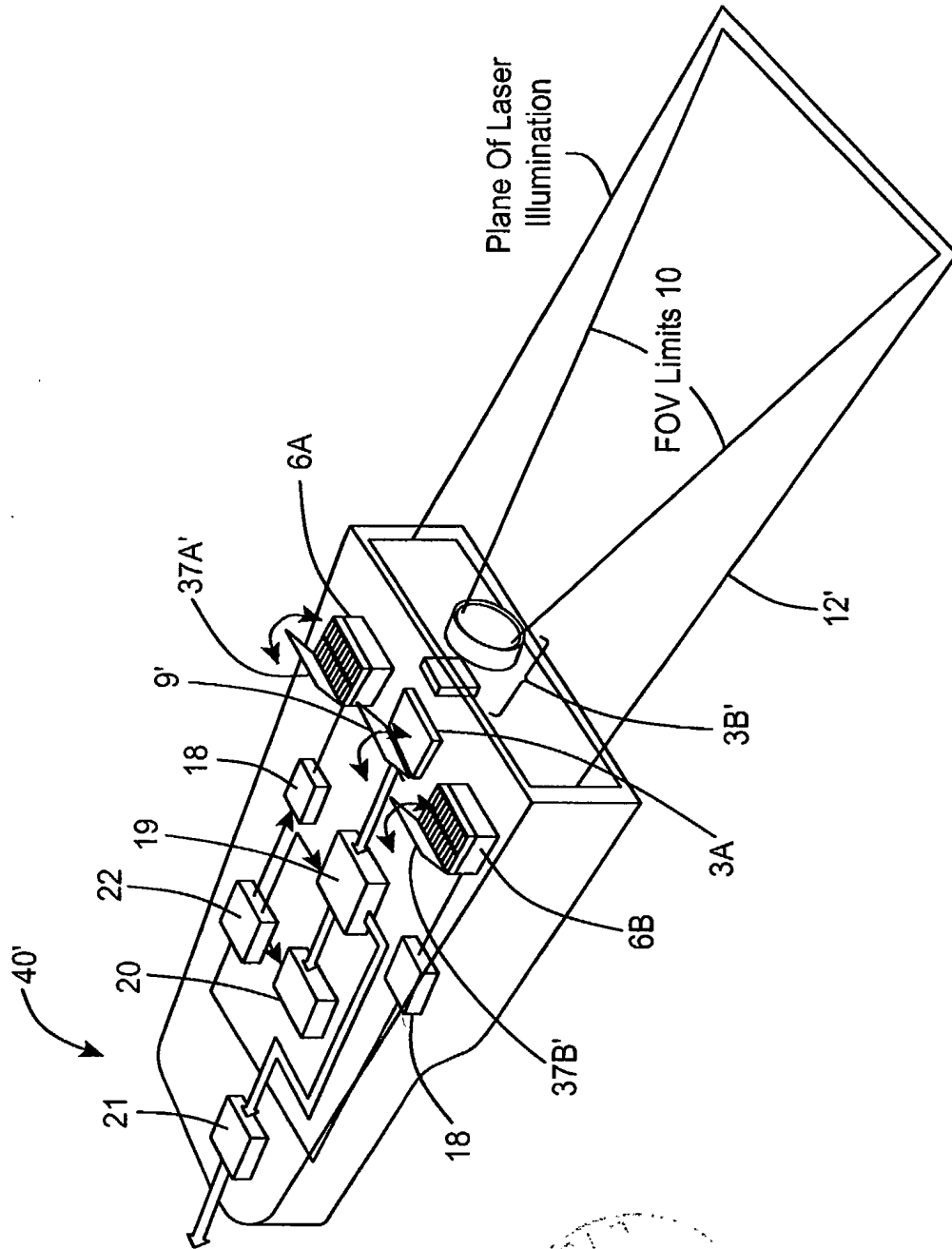


FIG. 215

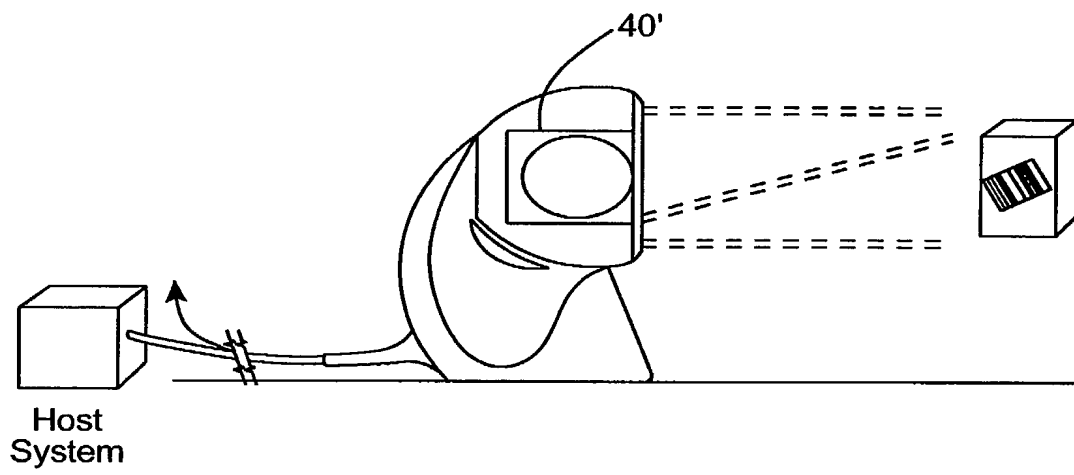
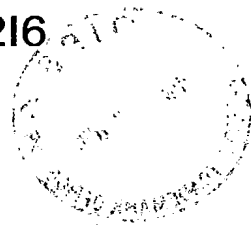


FIG. 216



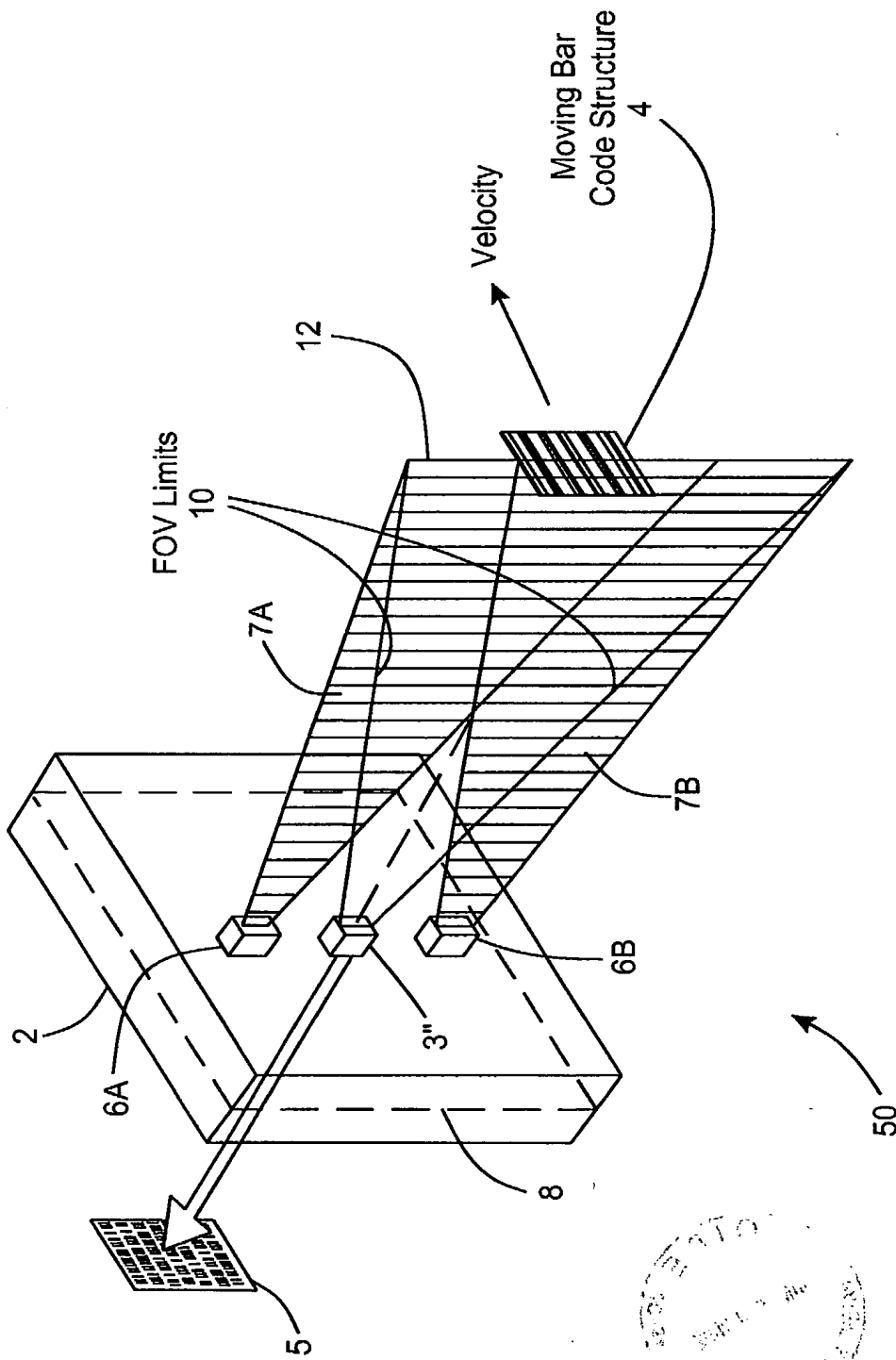


FIG. 3A

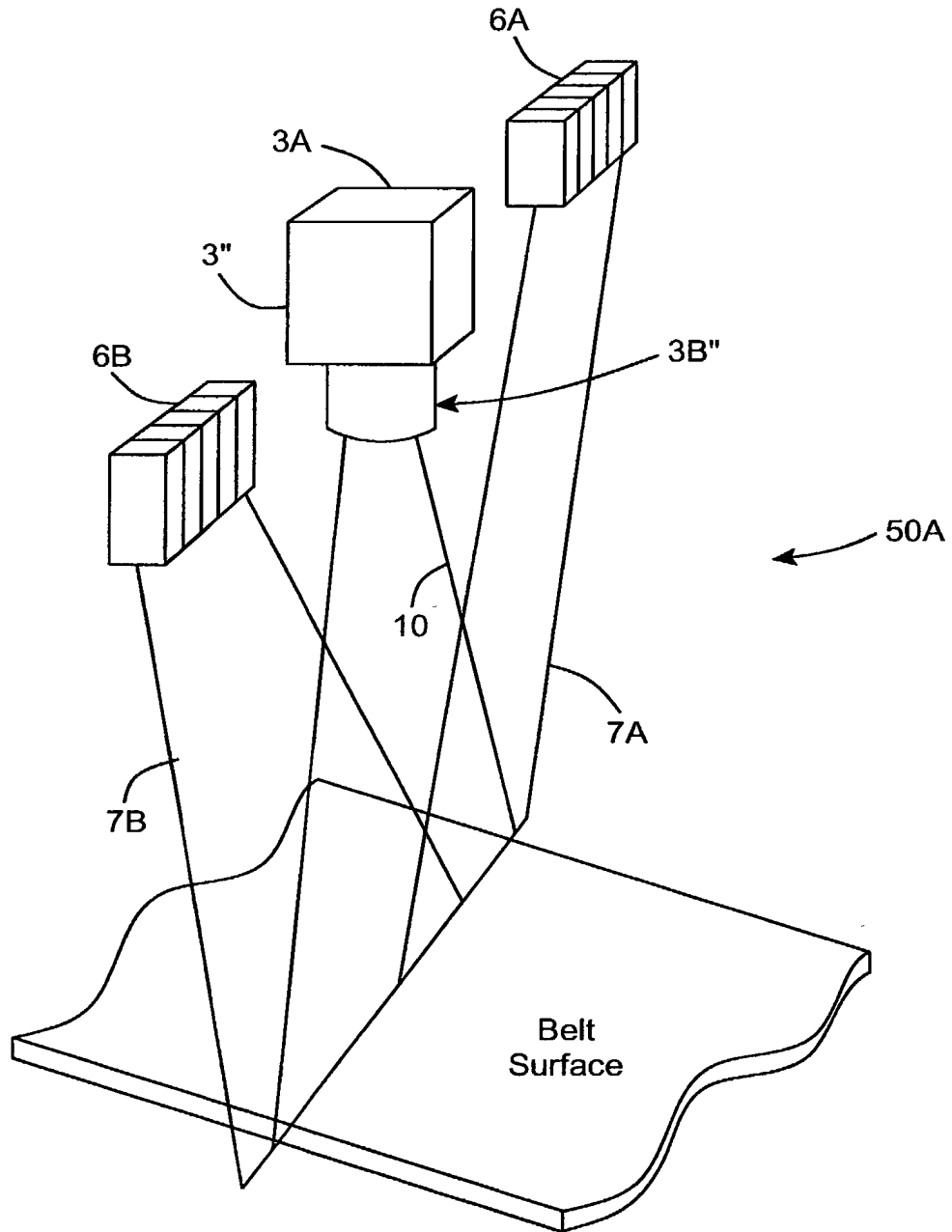


FIG. 3B1

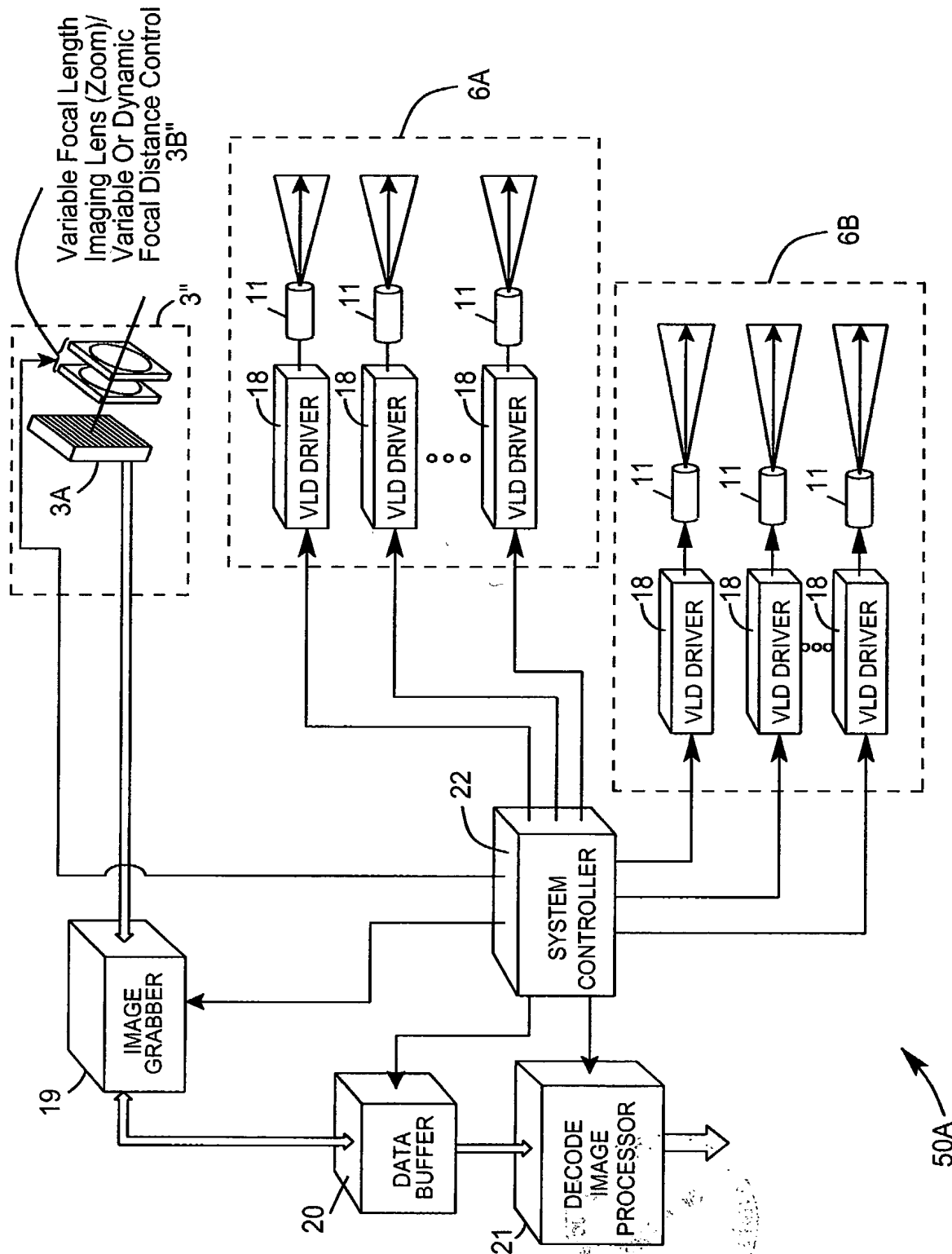


FIG. 3C1

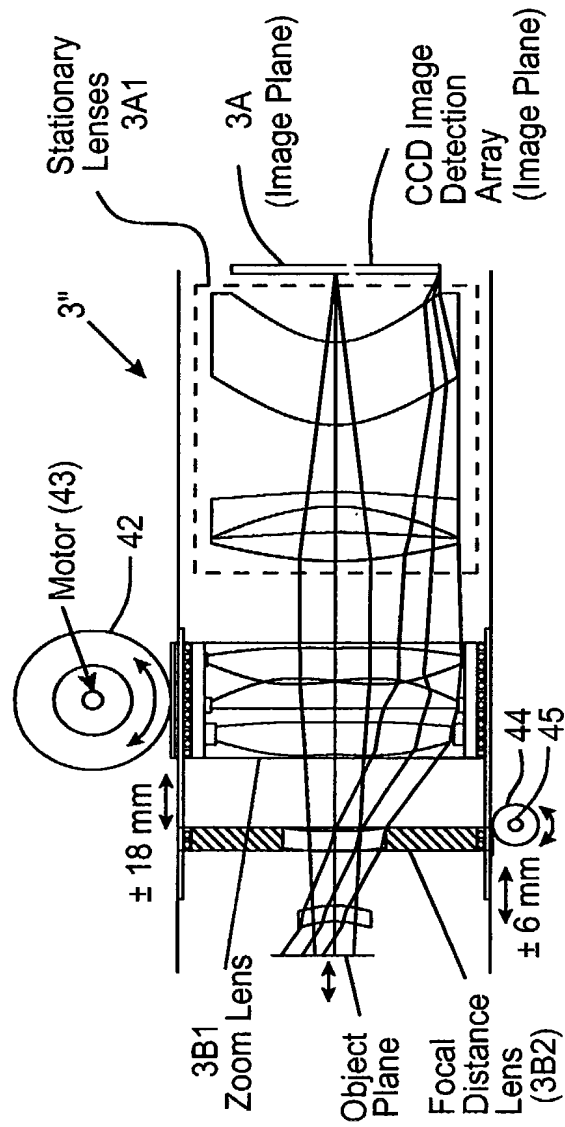


FIG. 3D



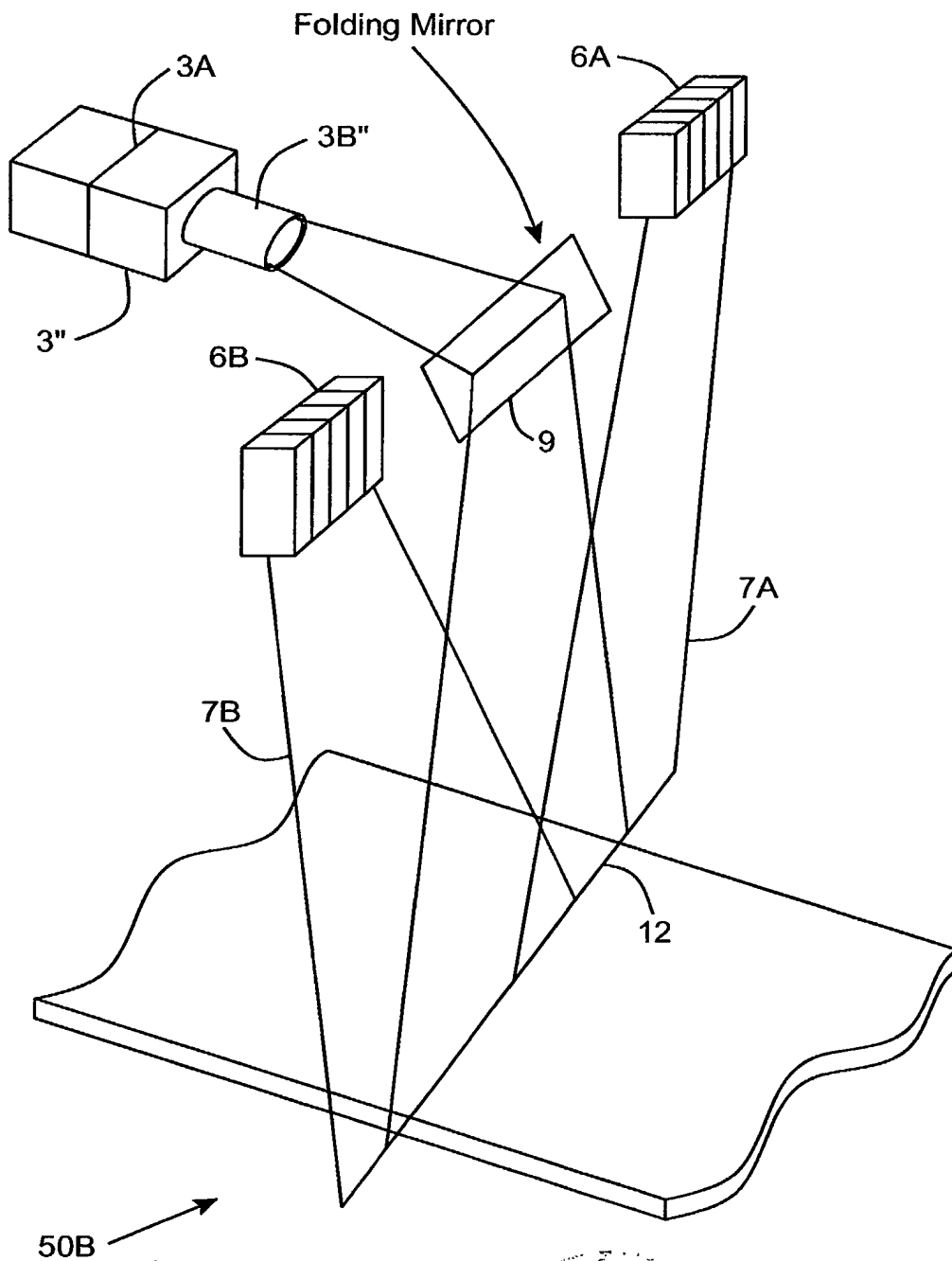


FIG. 3E1

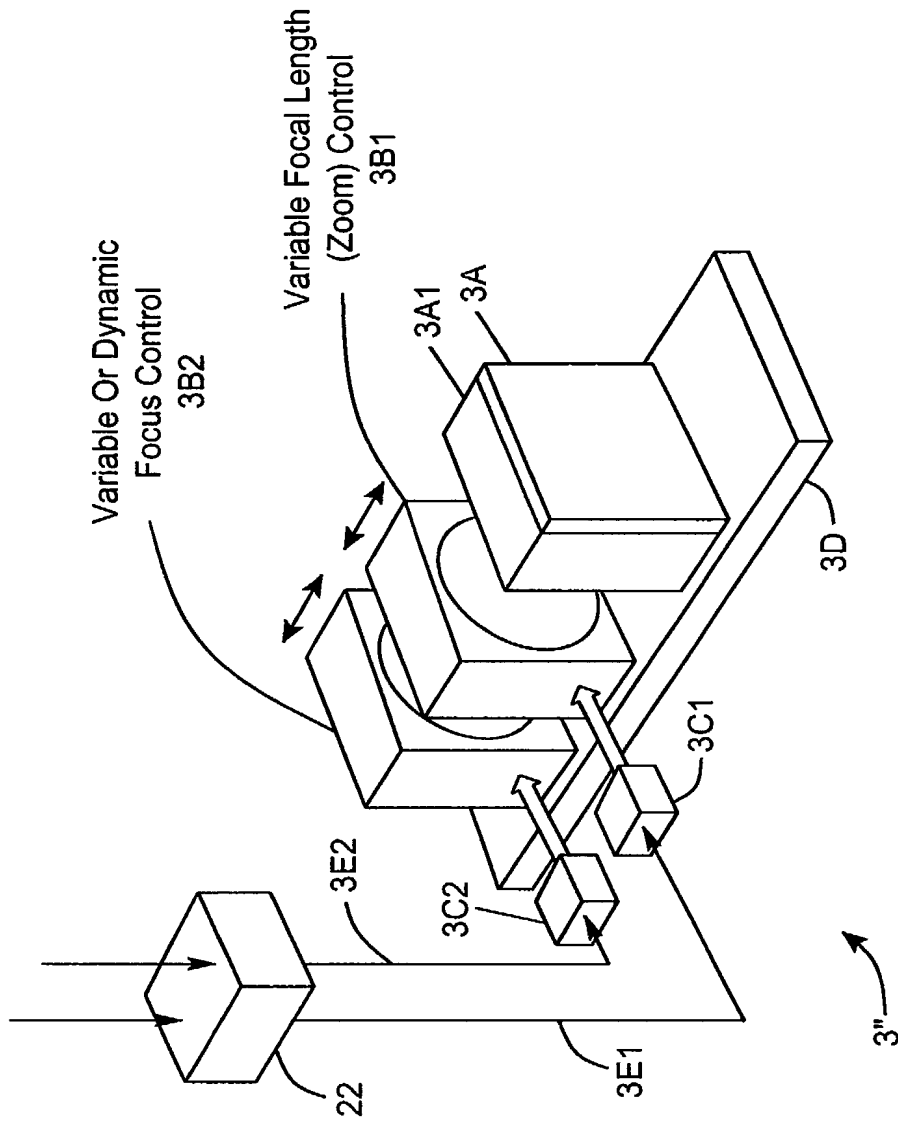


FIG. 3E3

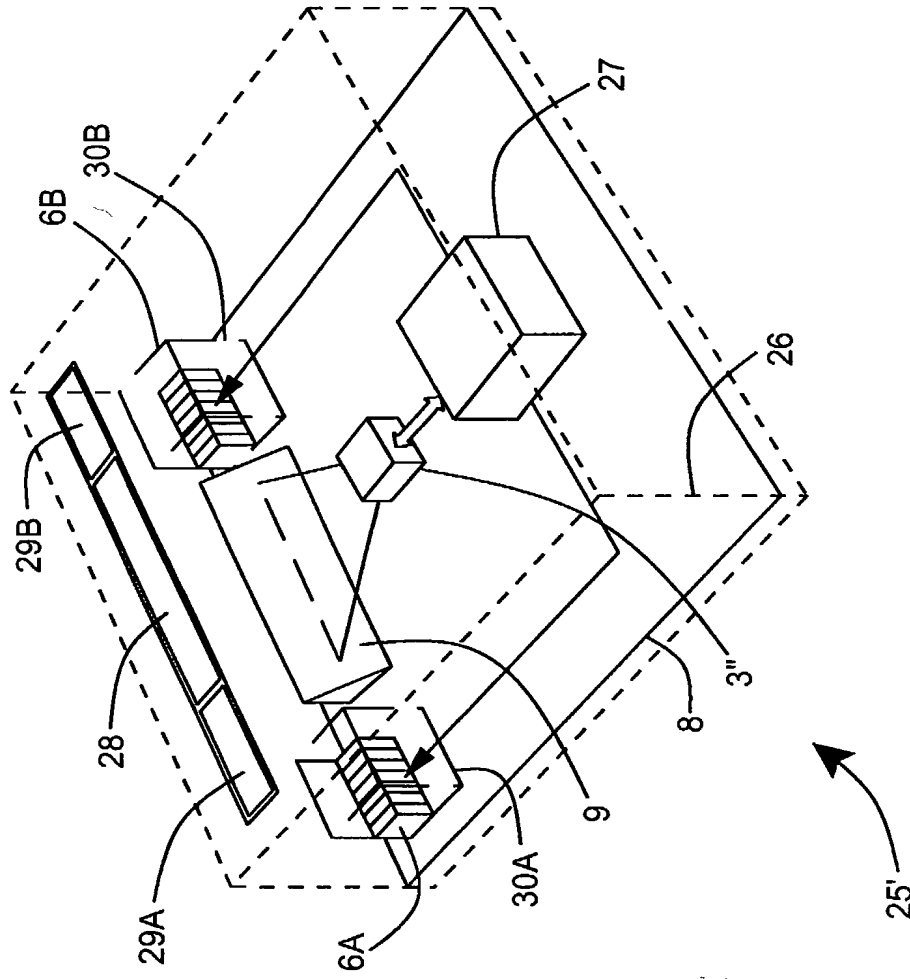
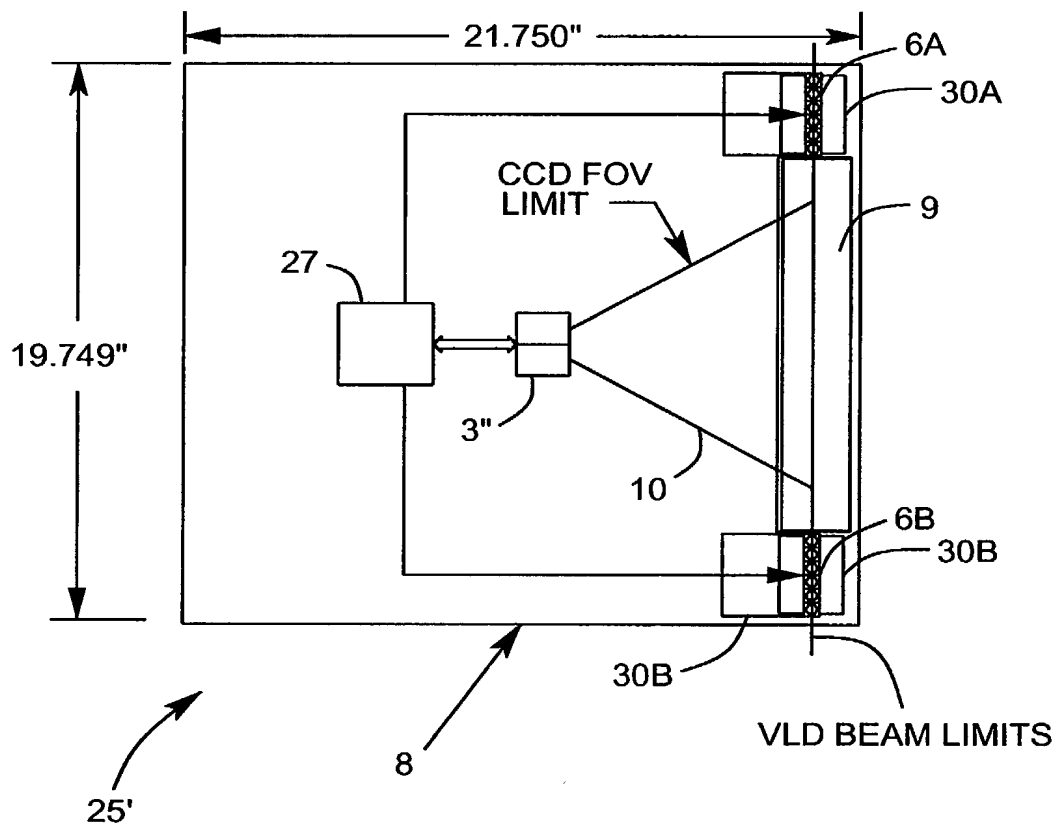


FIG. 3E4

10066543, 060302



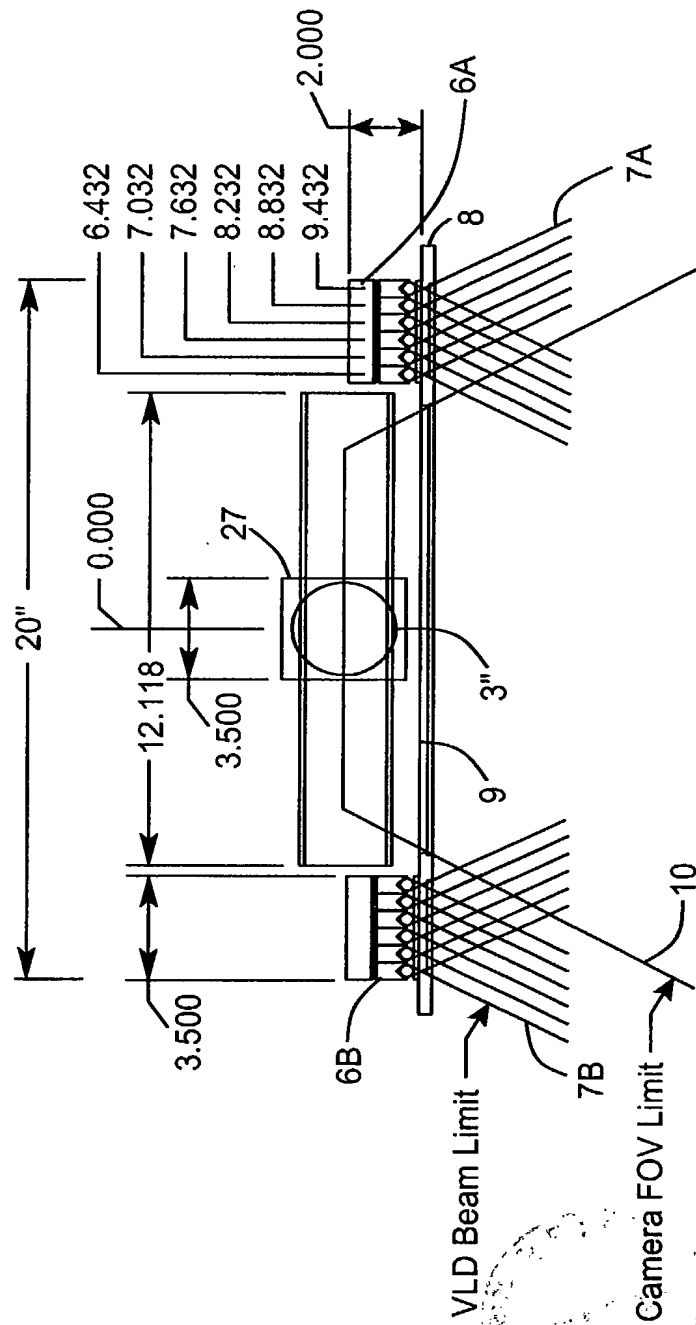


FIG. 3E6

FIG. 3E7

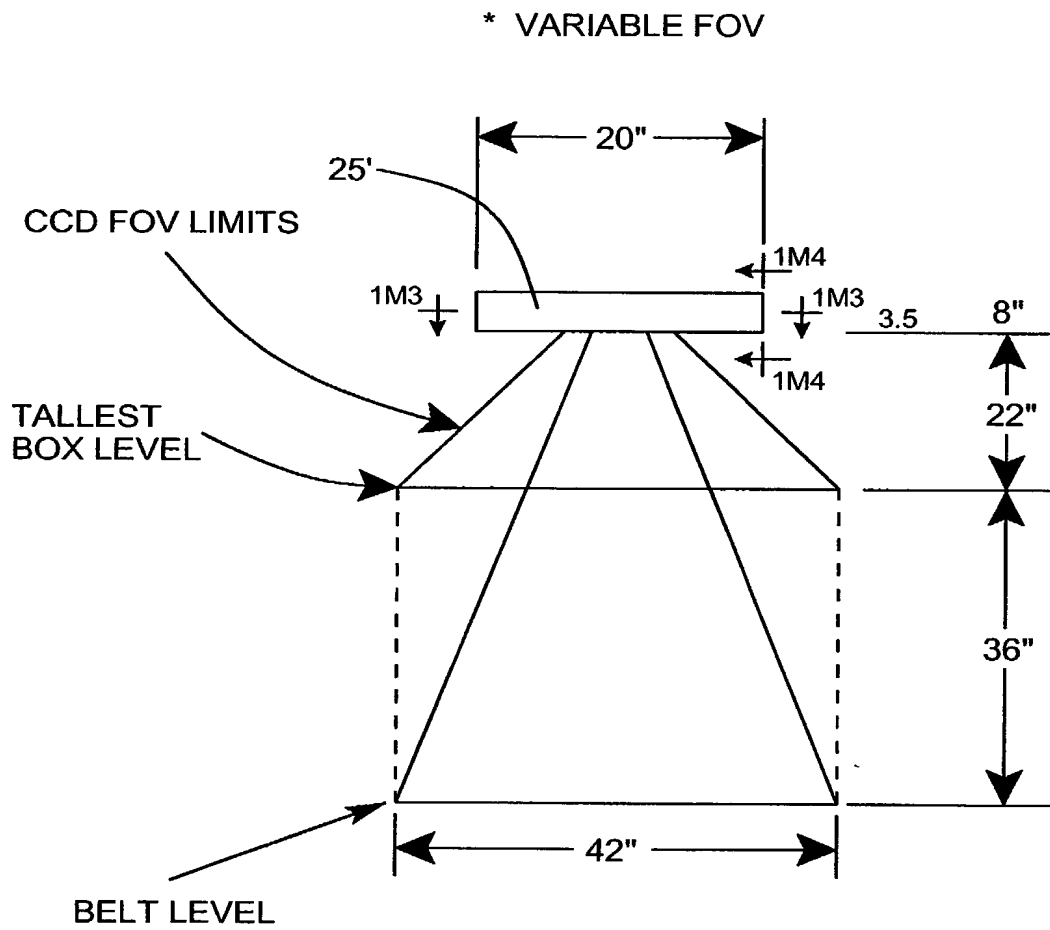
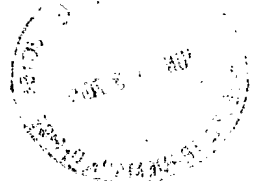


FIG. 3E8



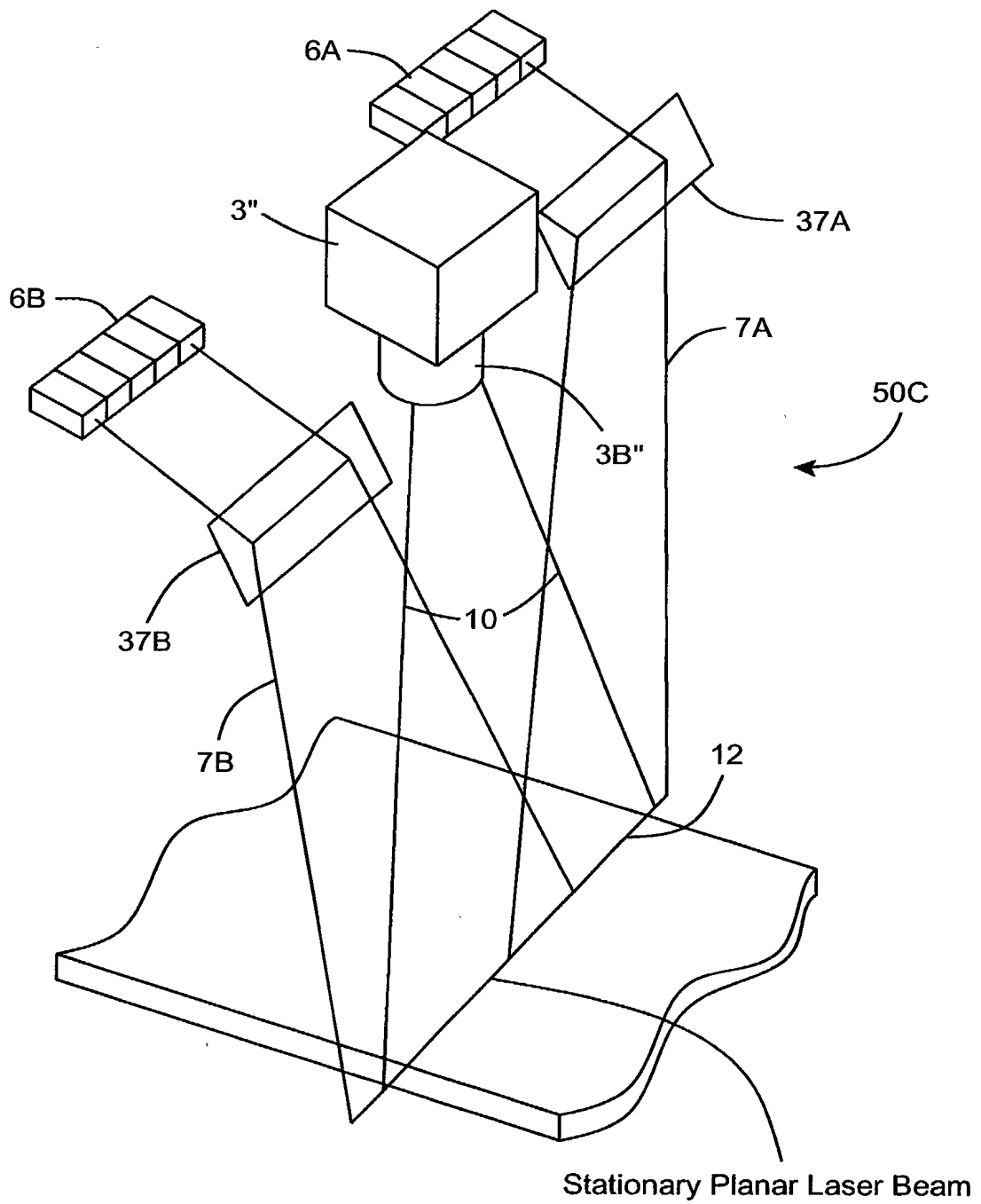
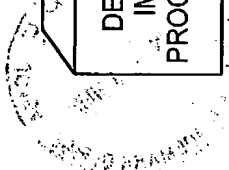


FIG. 3F1



50C

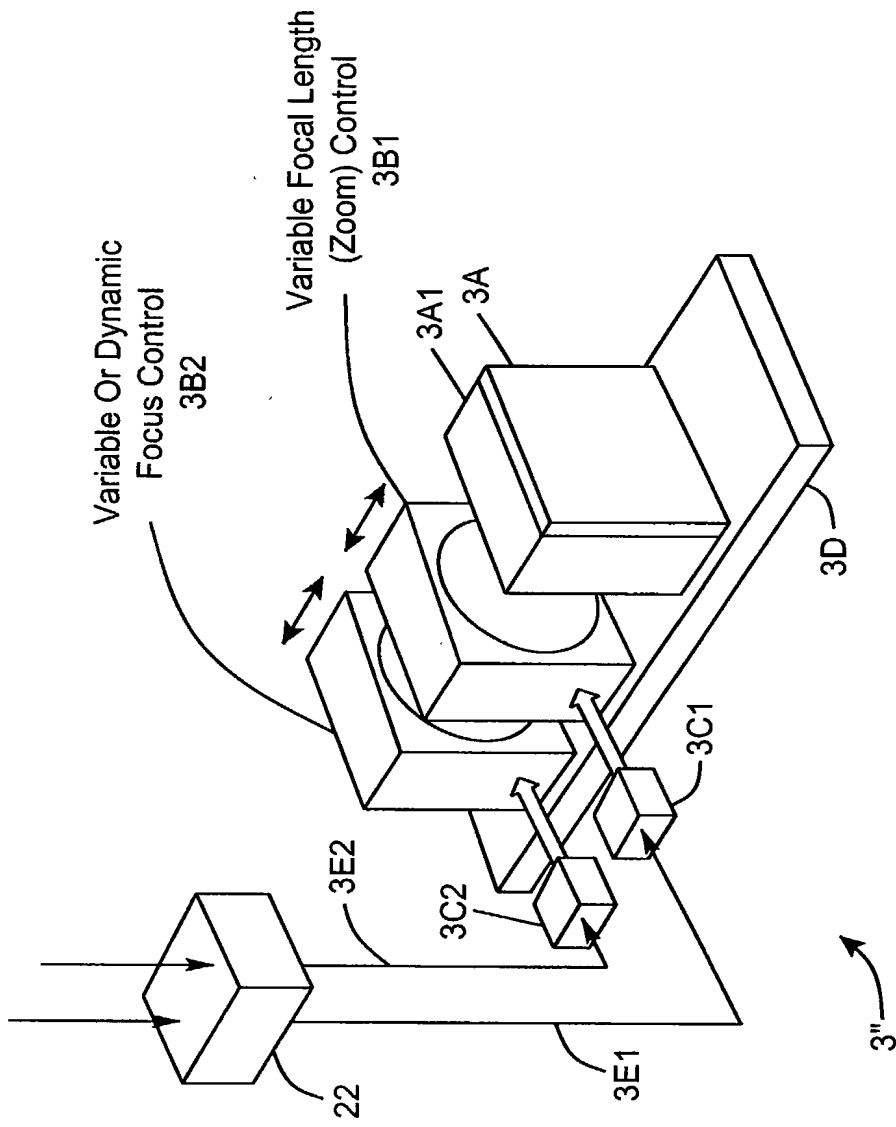


FIG. 3F3

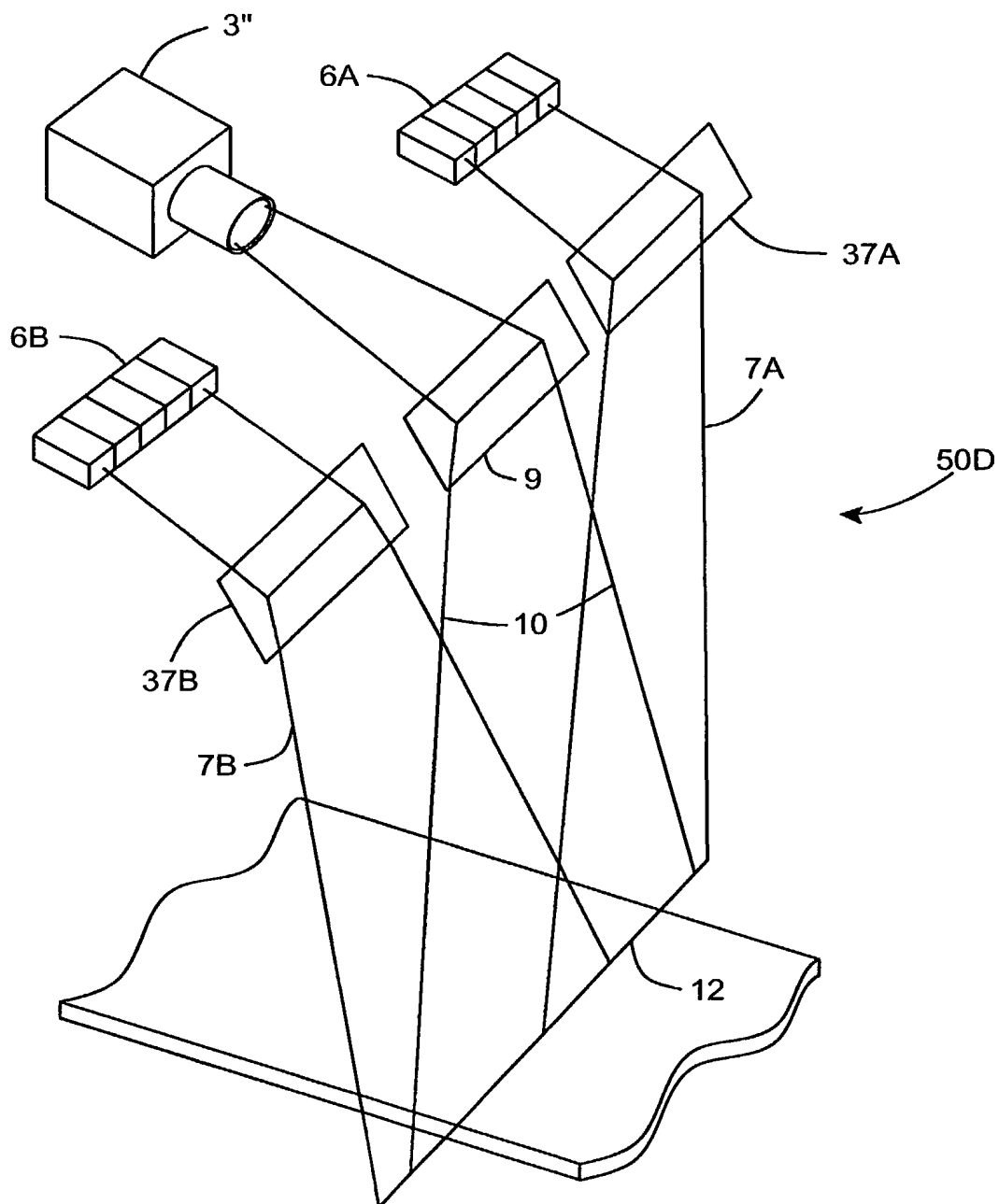
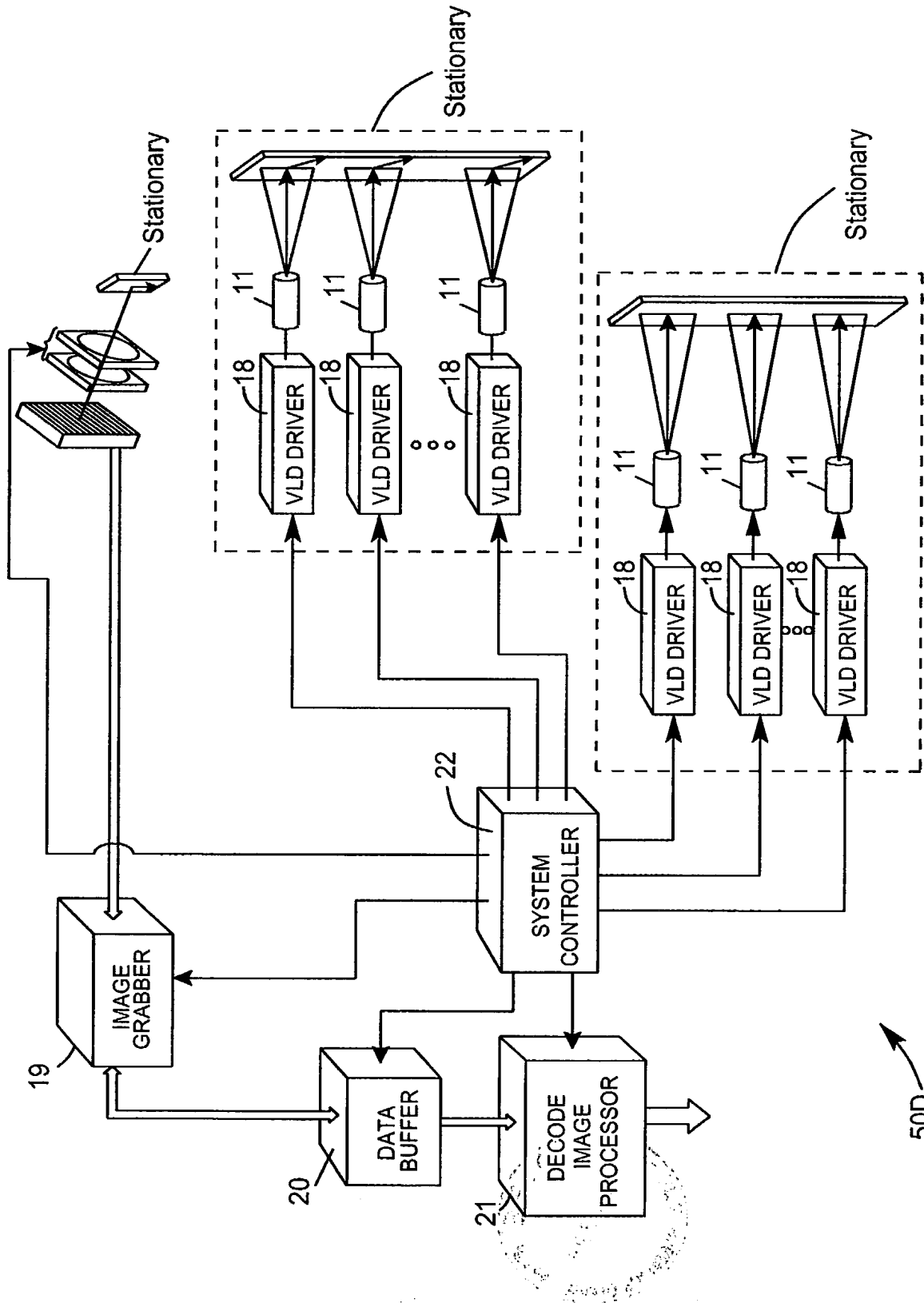


FIG. 3G1



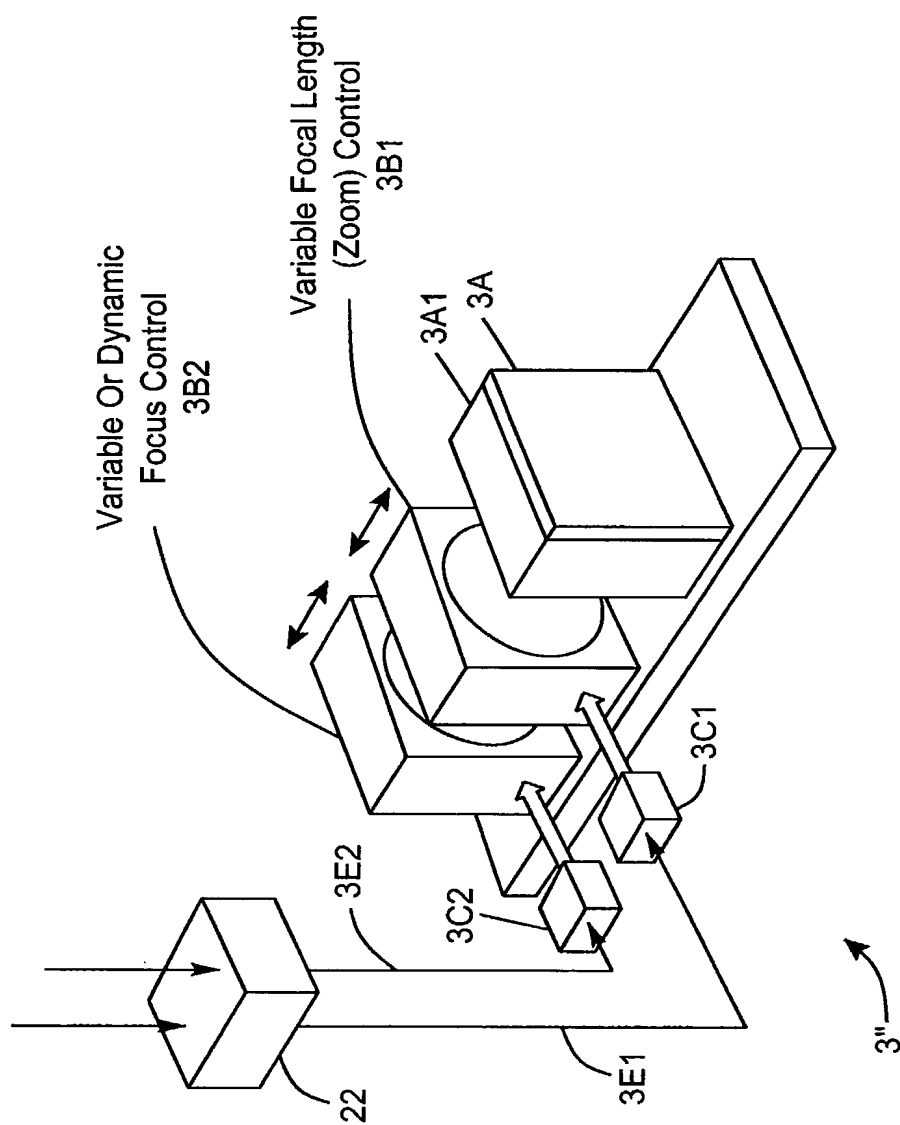


FIG. 3G3

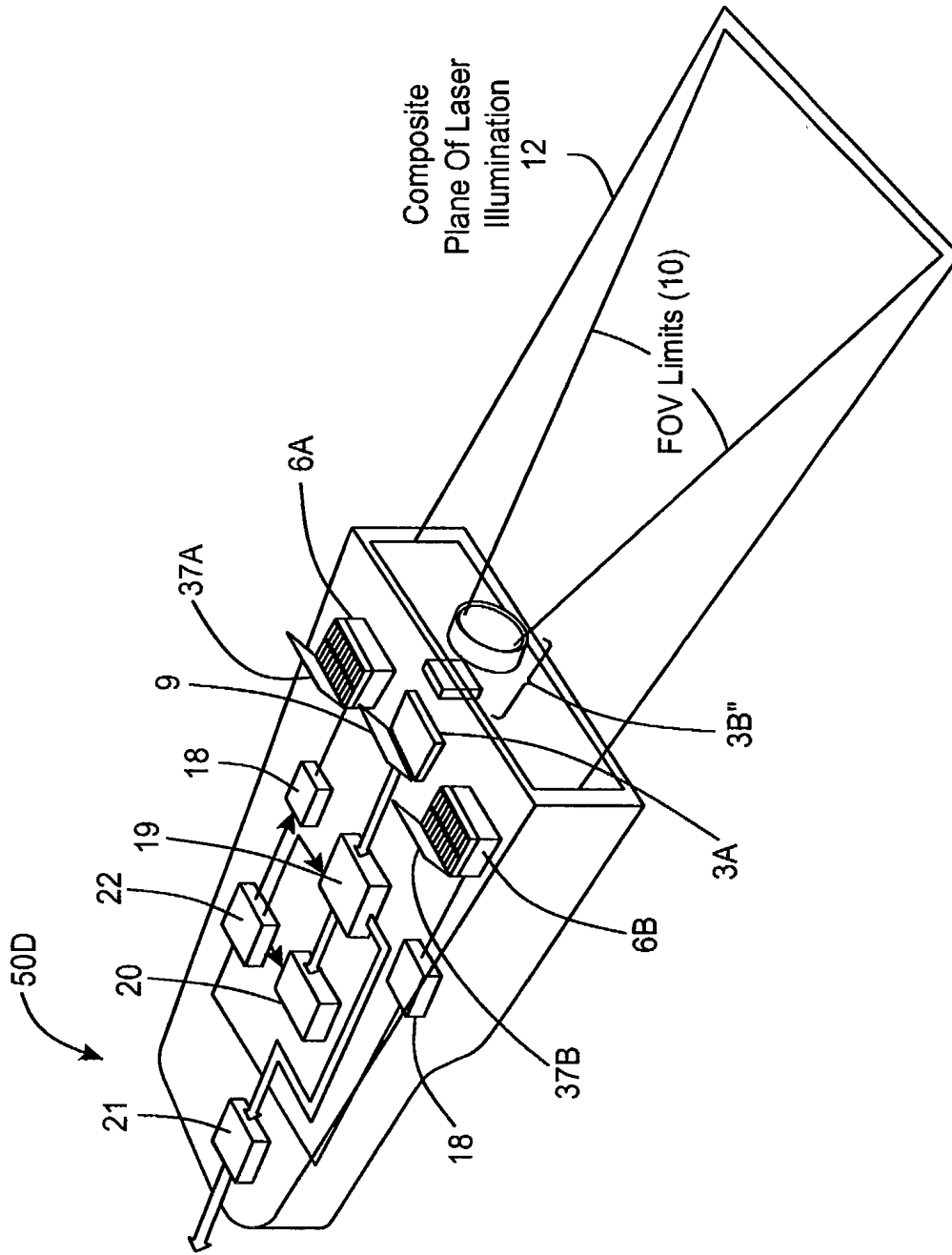
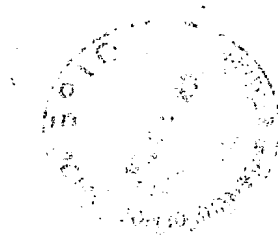


FIG. 3I



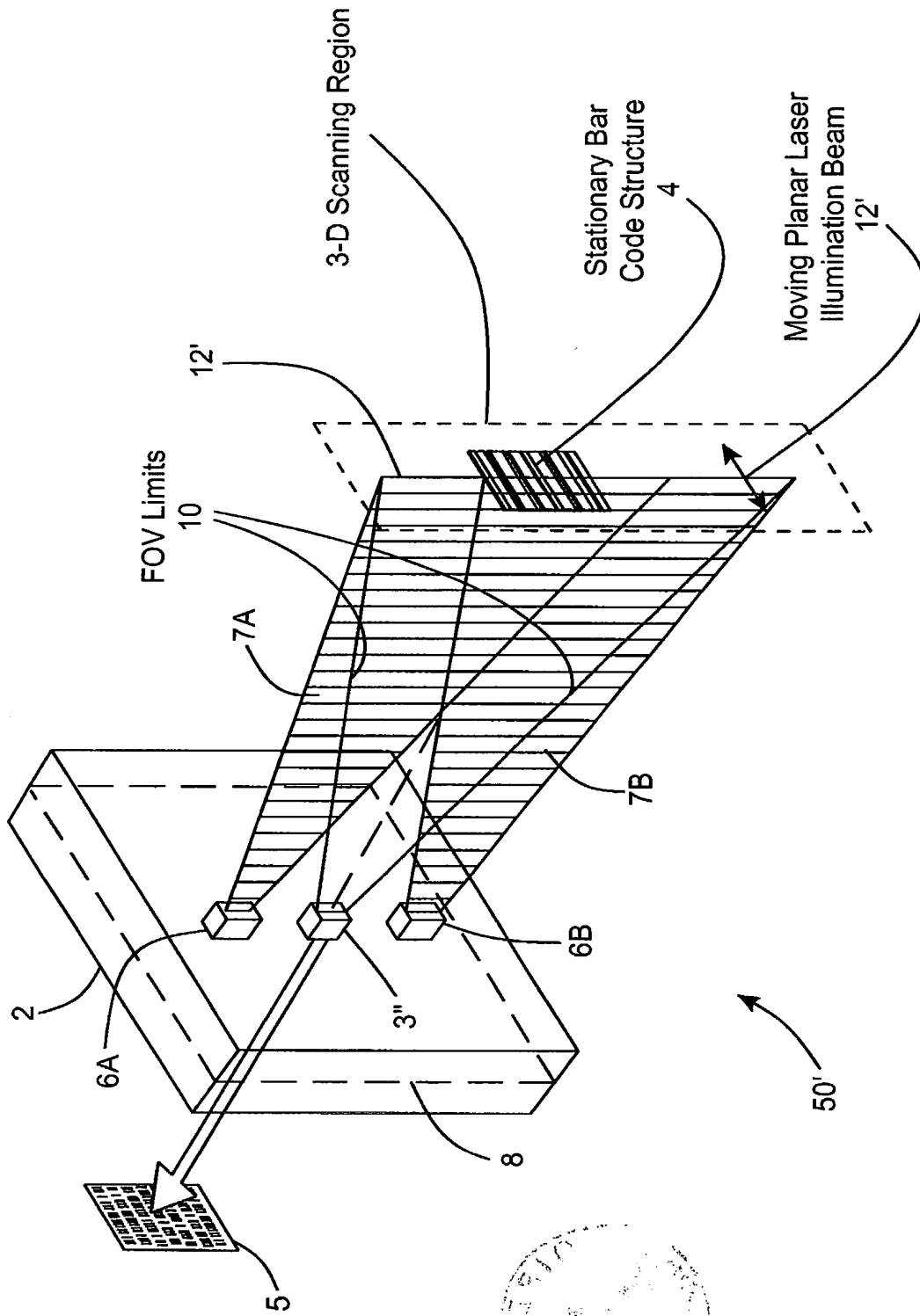


FIG. 3J1

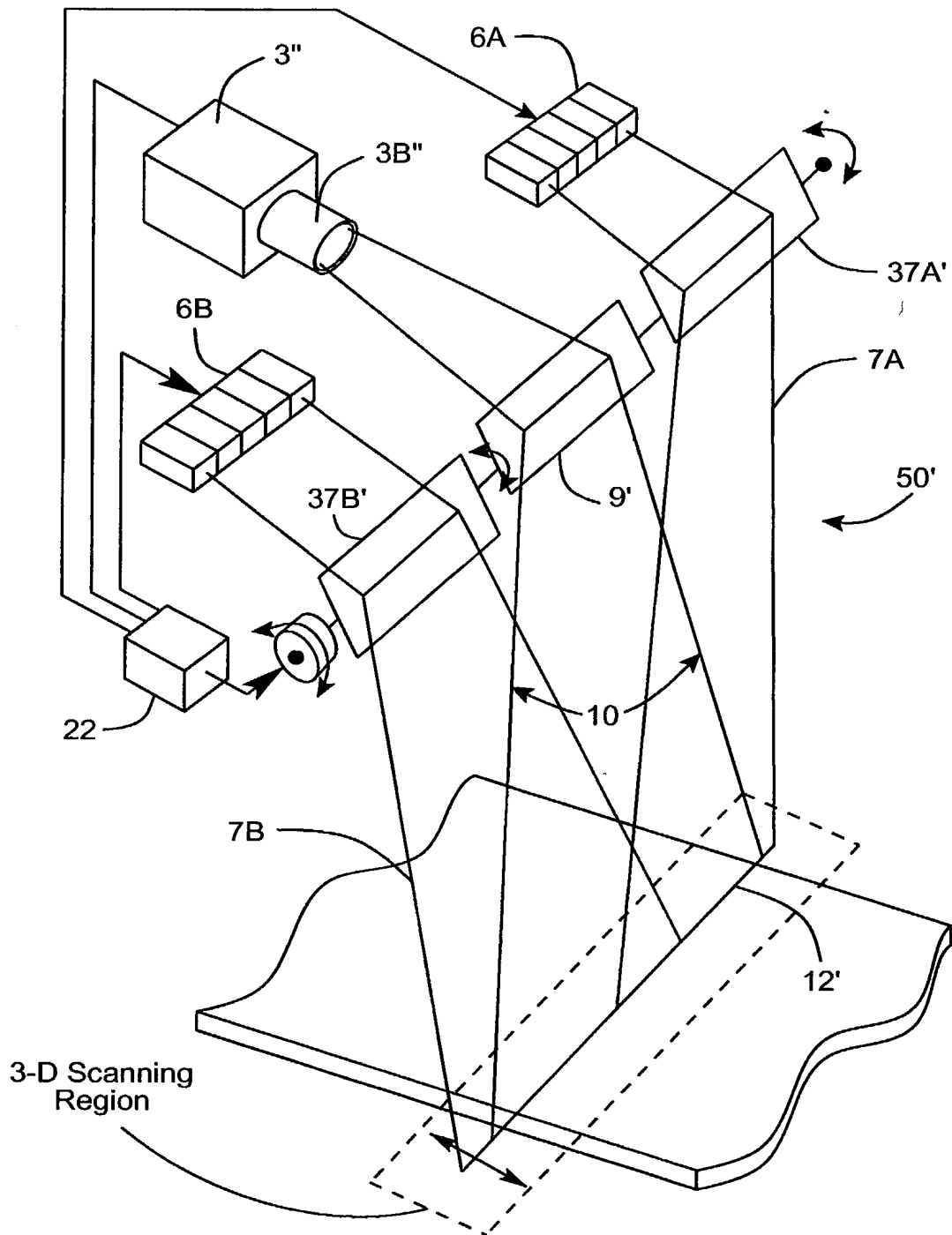


FIG. 3J2

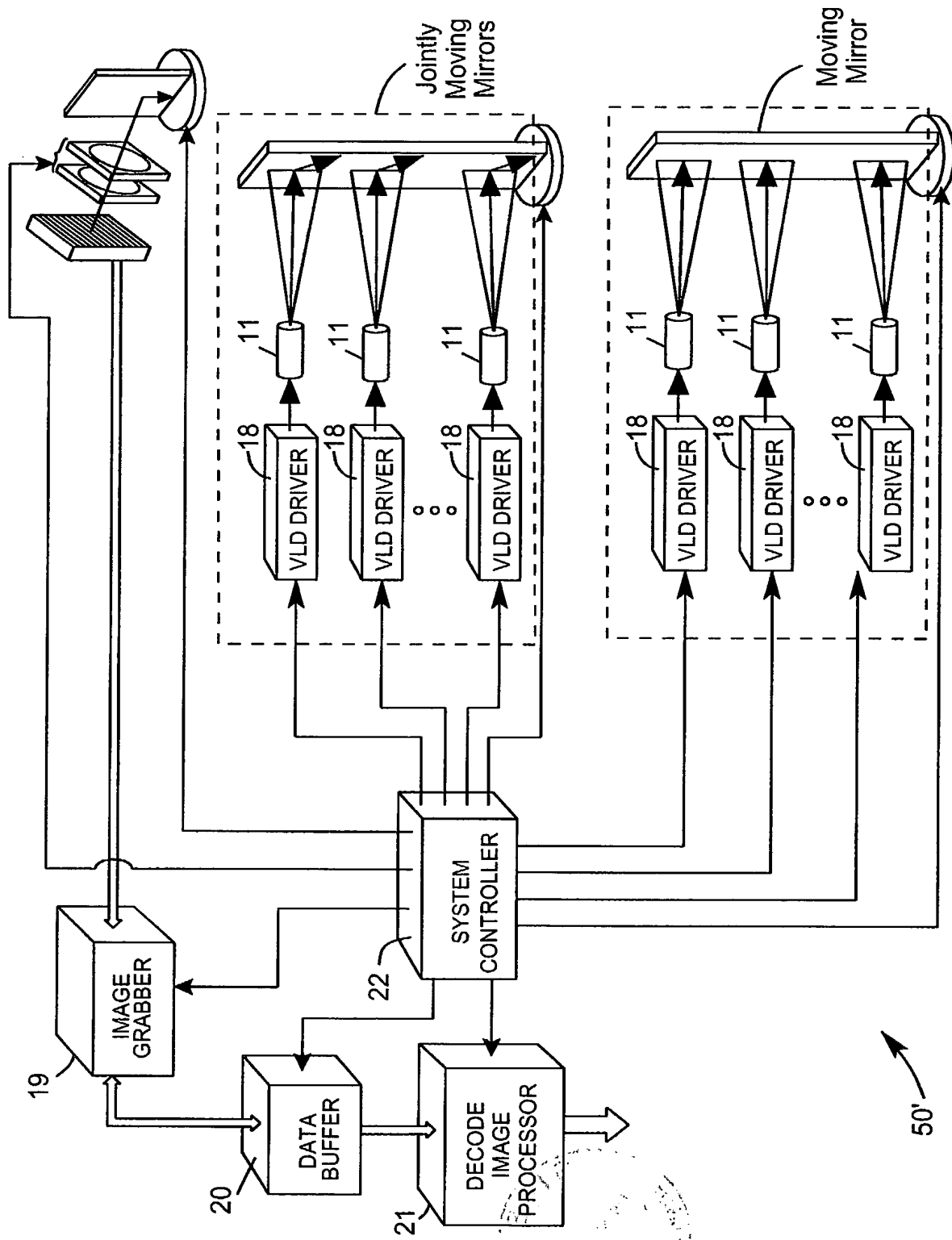


FIG. 3J3

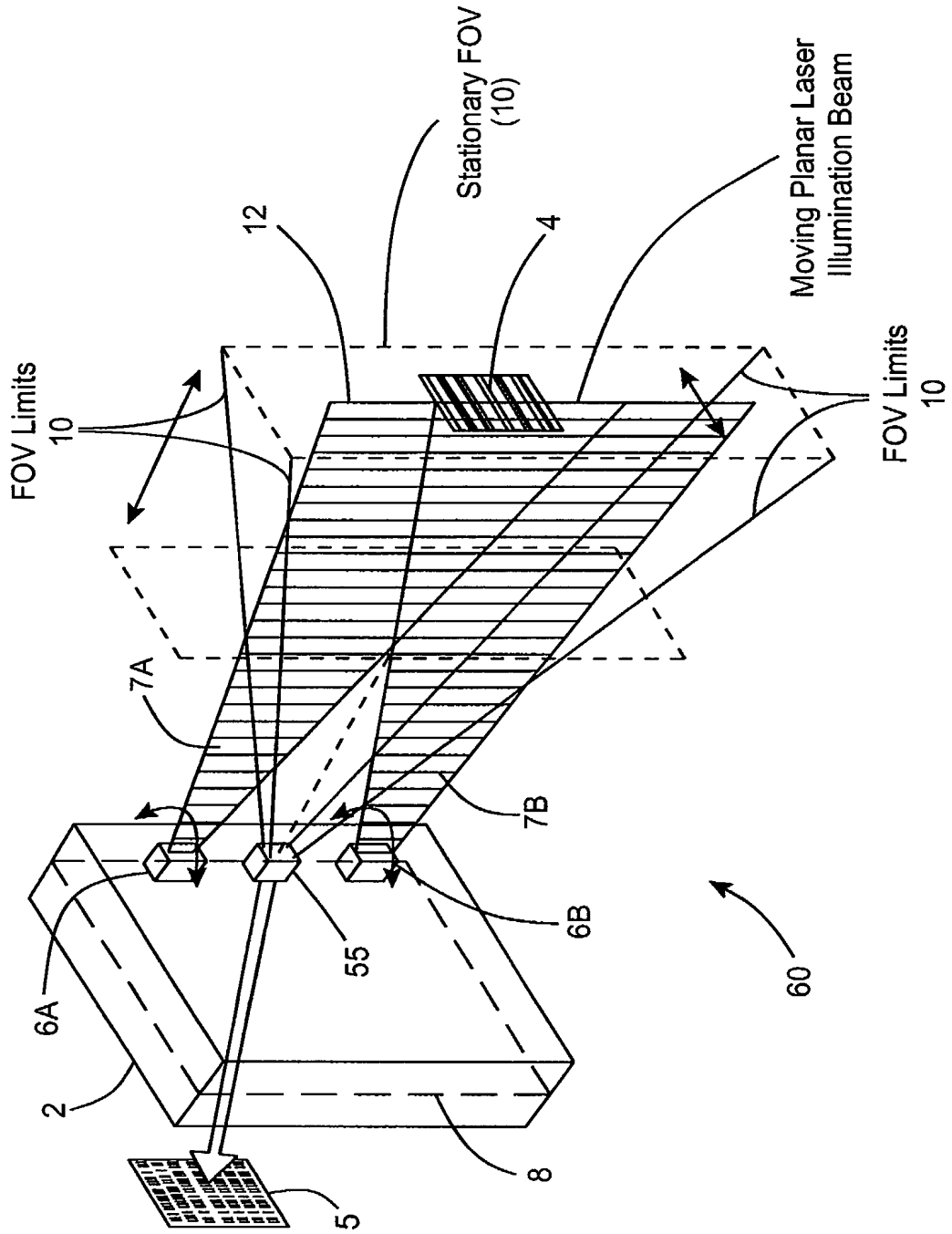


FIG. 4A



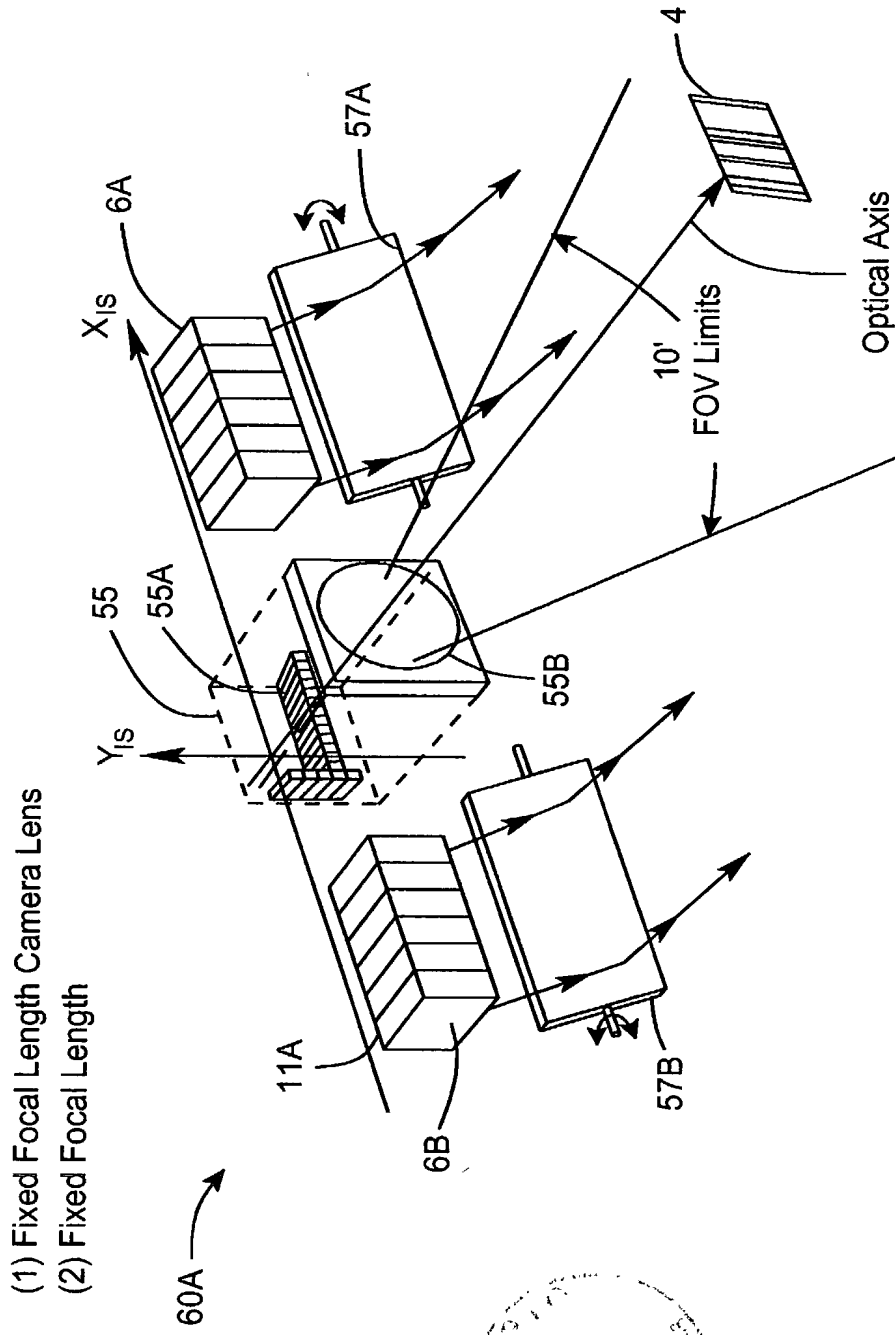
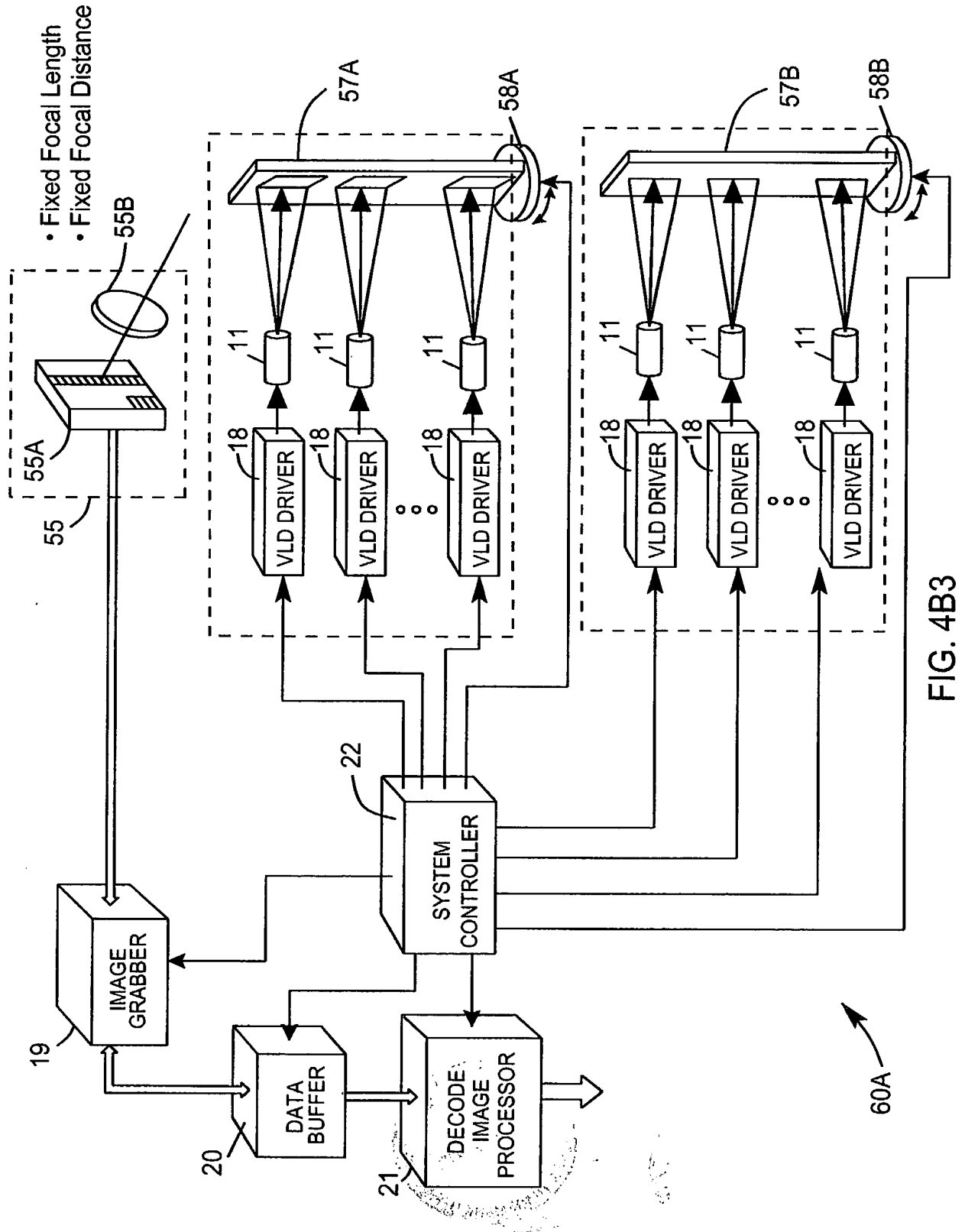


FIG. 4B2



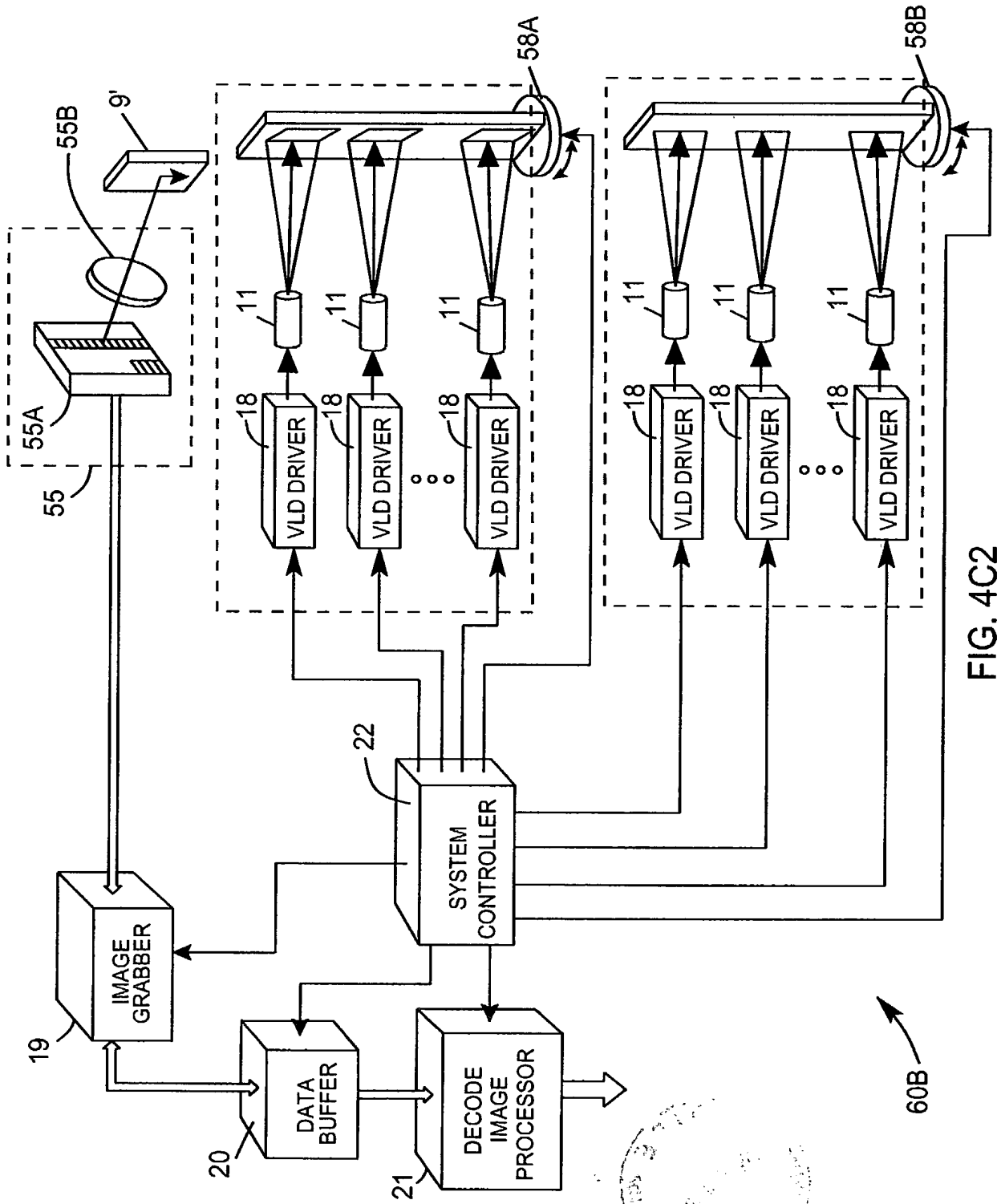
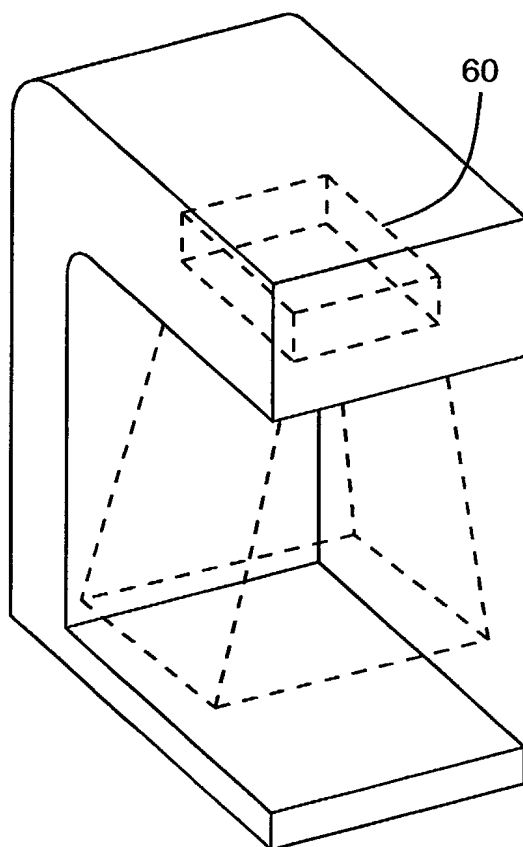


FIG. 4C2



2-D Hold-under Scanner

FIG. 4D



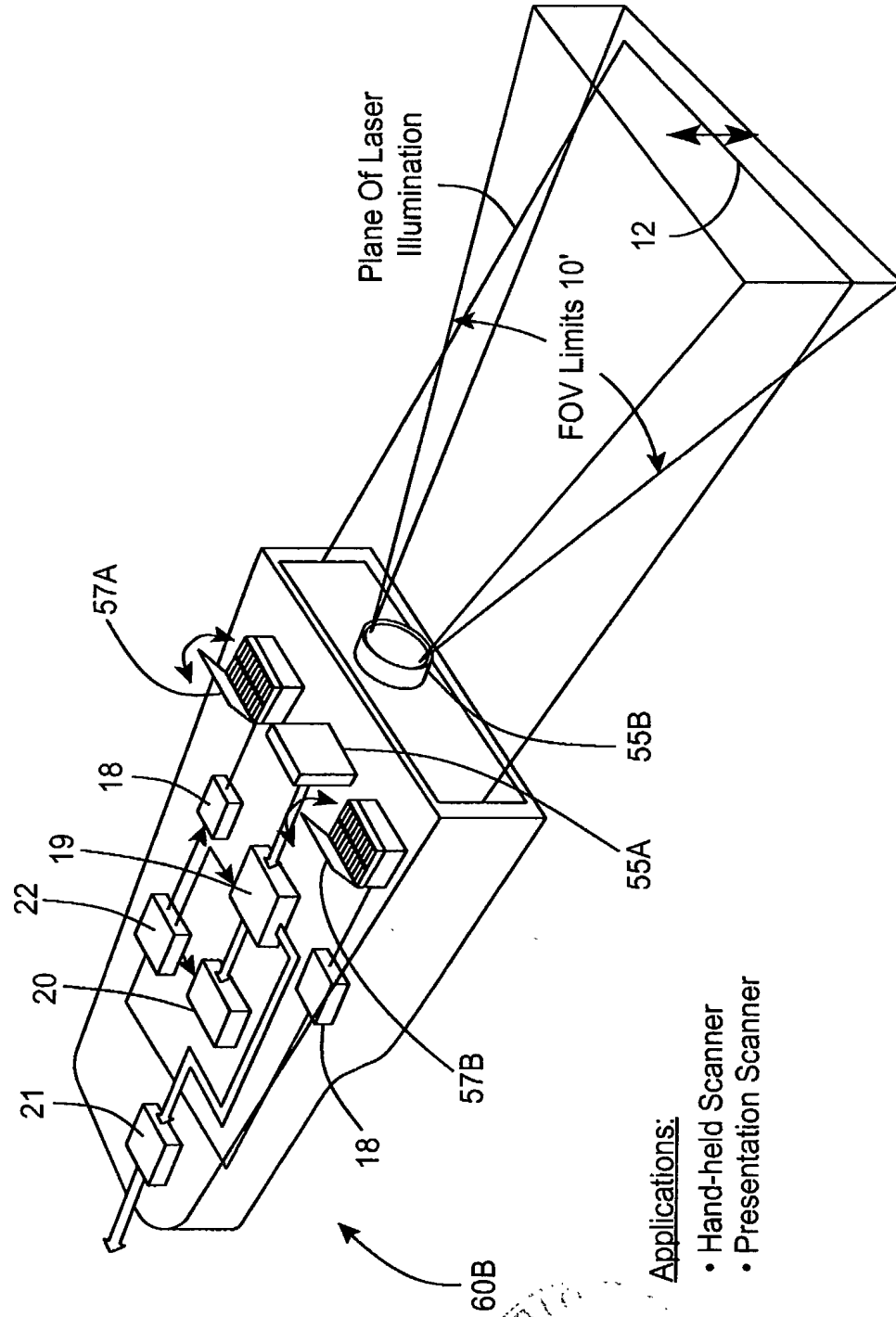


FIG. 4E

Applications:

- Hand-held Scanner
- Presentation Scanner

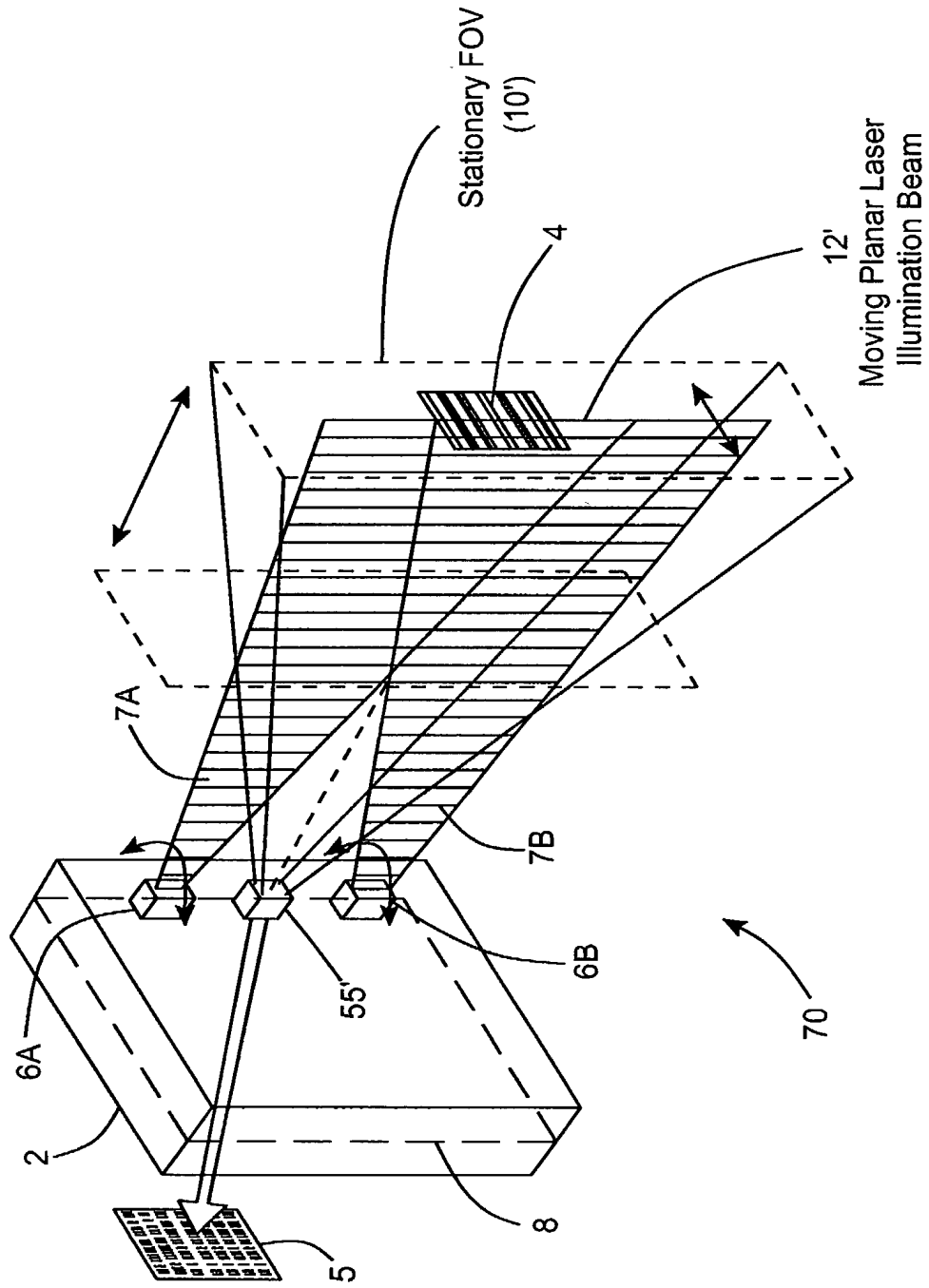


FIG. 5A



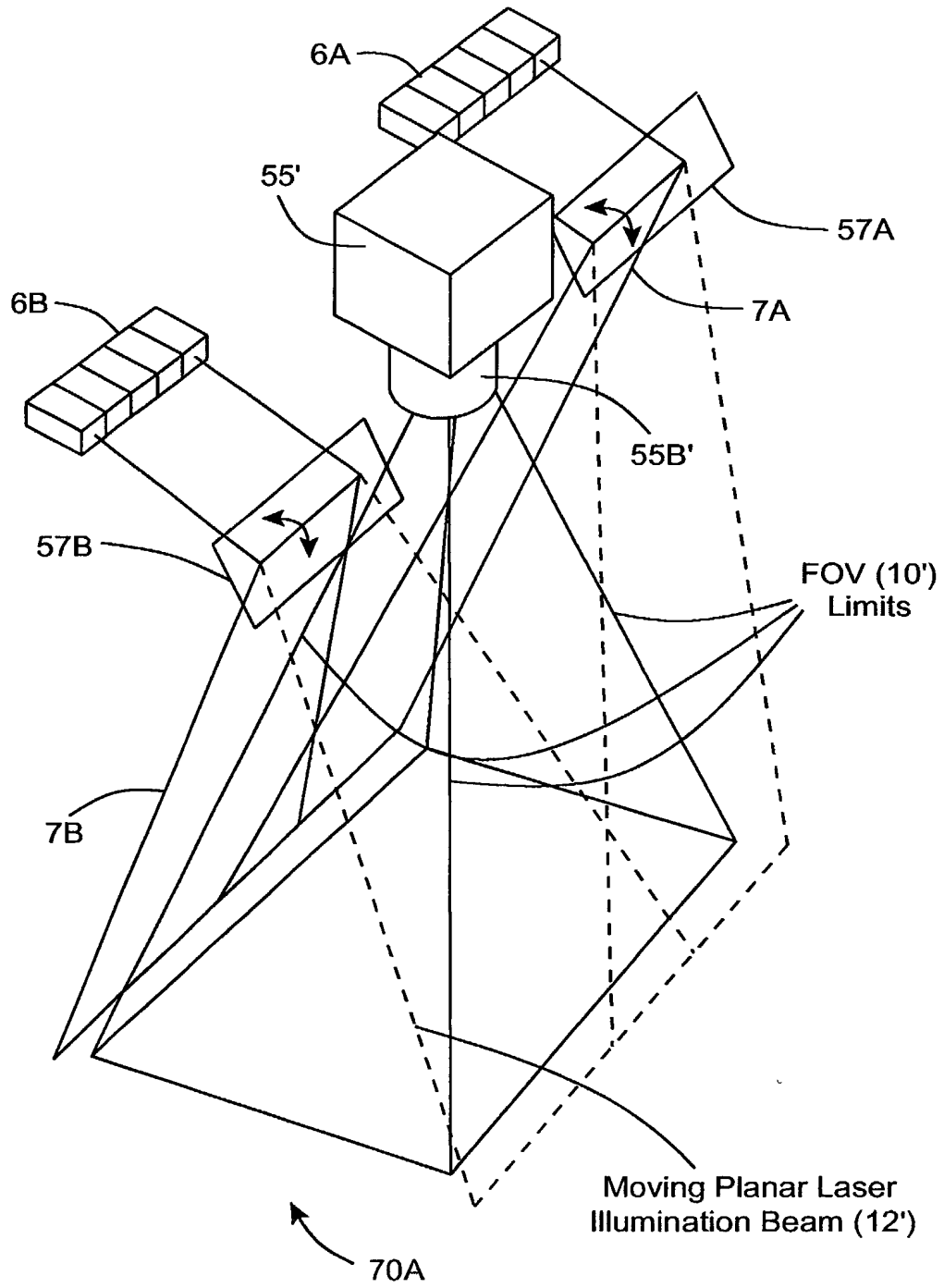


FIG. 5B1

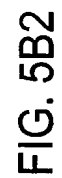


FIG. 5B2

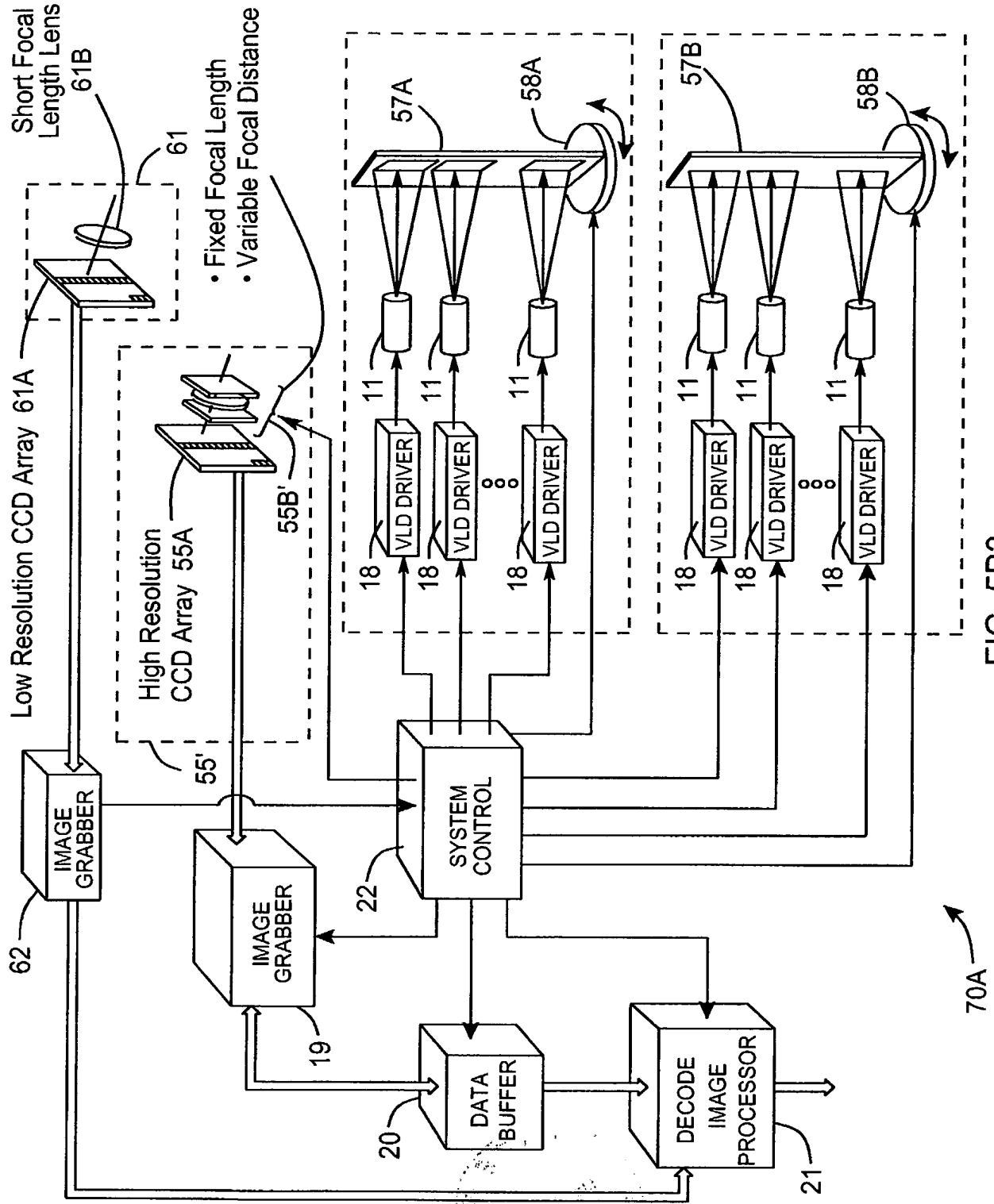


FIG. 5B3

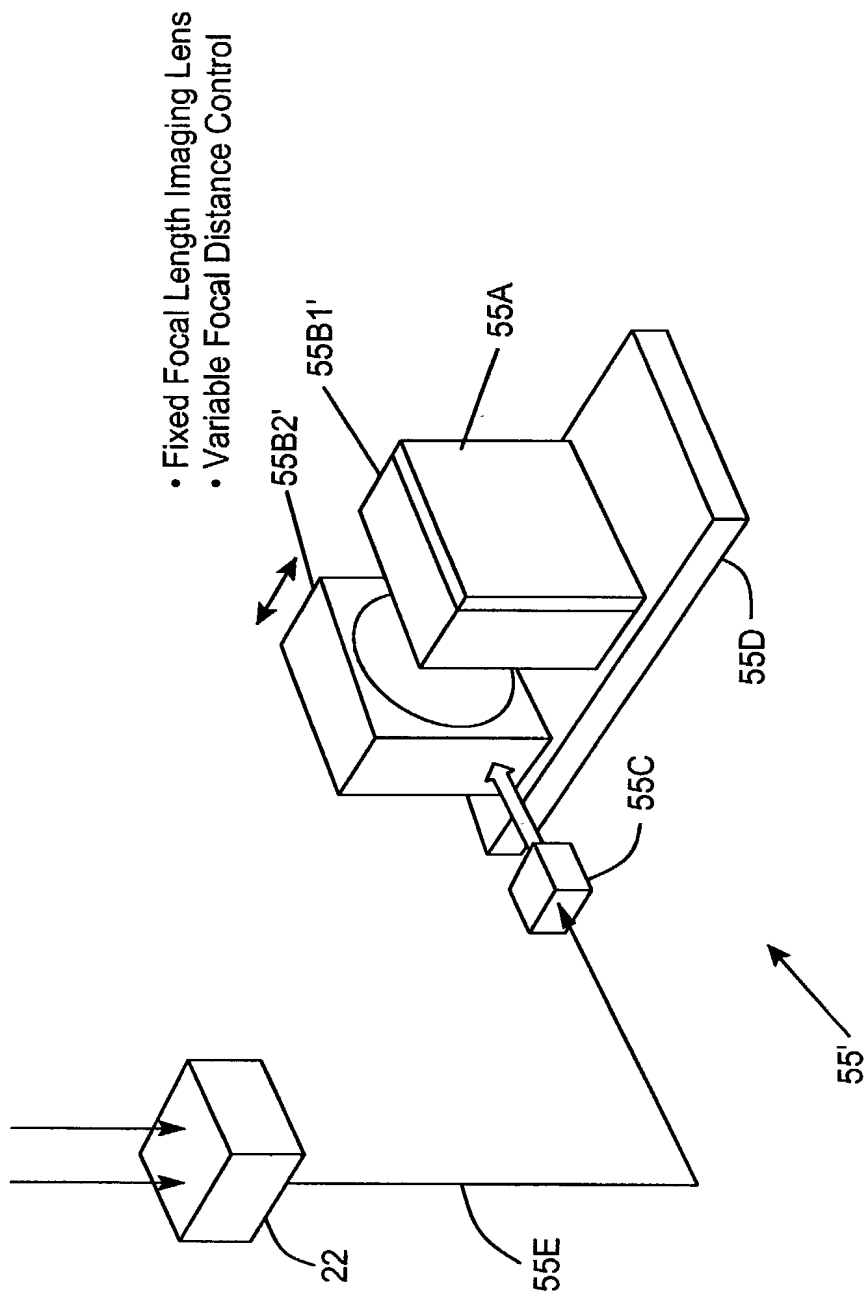


FIG. 5B4



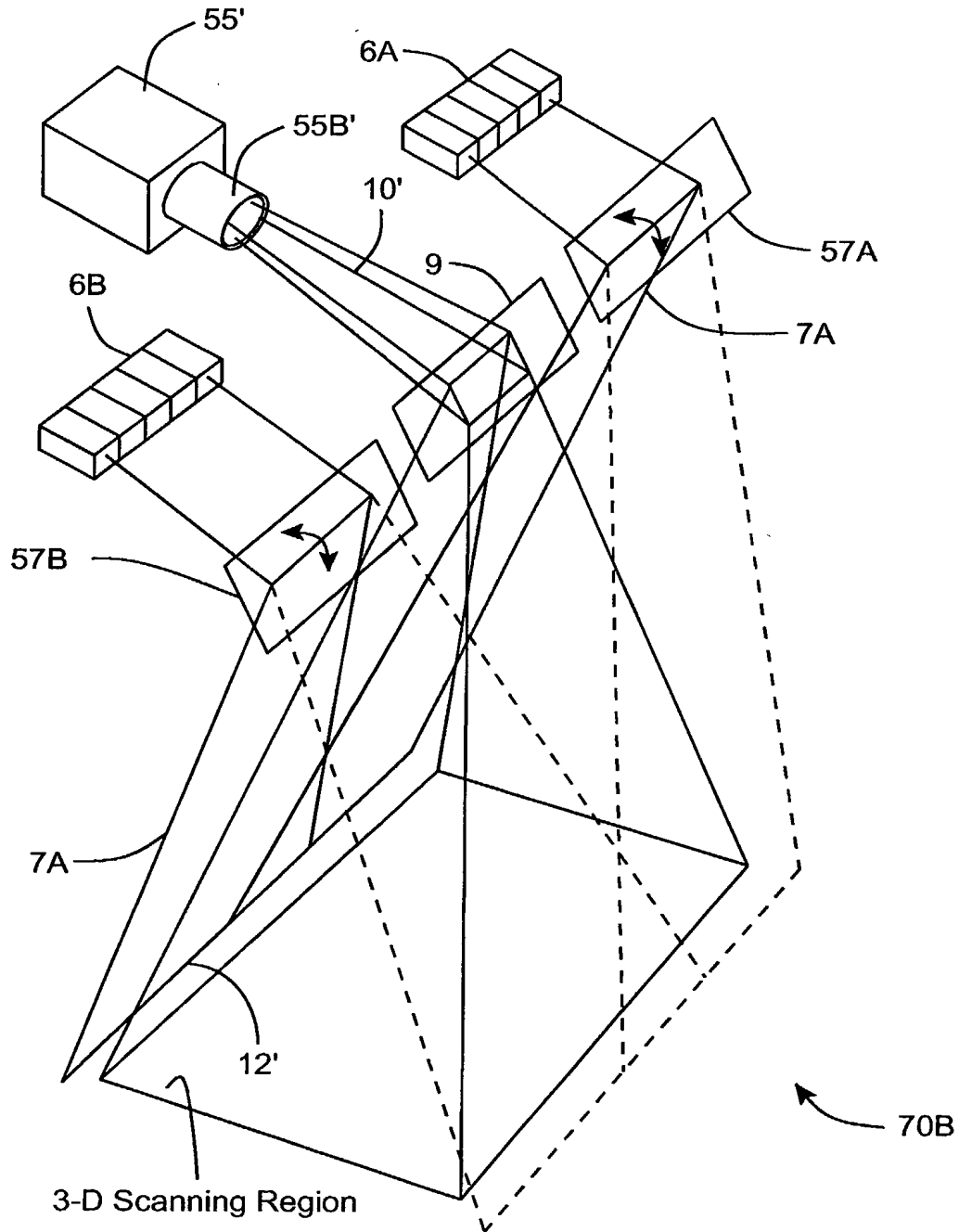


FIG. 5C1

- (1) Variable Focal Length Camera Lens
- (2) Fixed Focal Distance

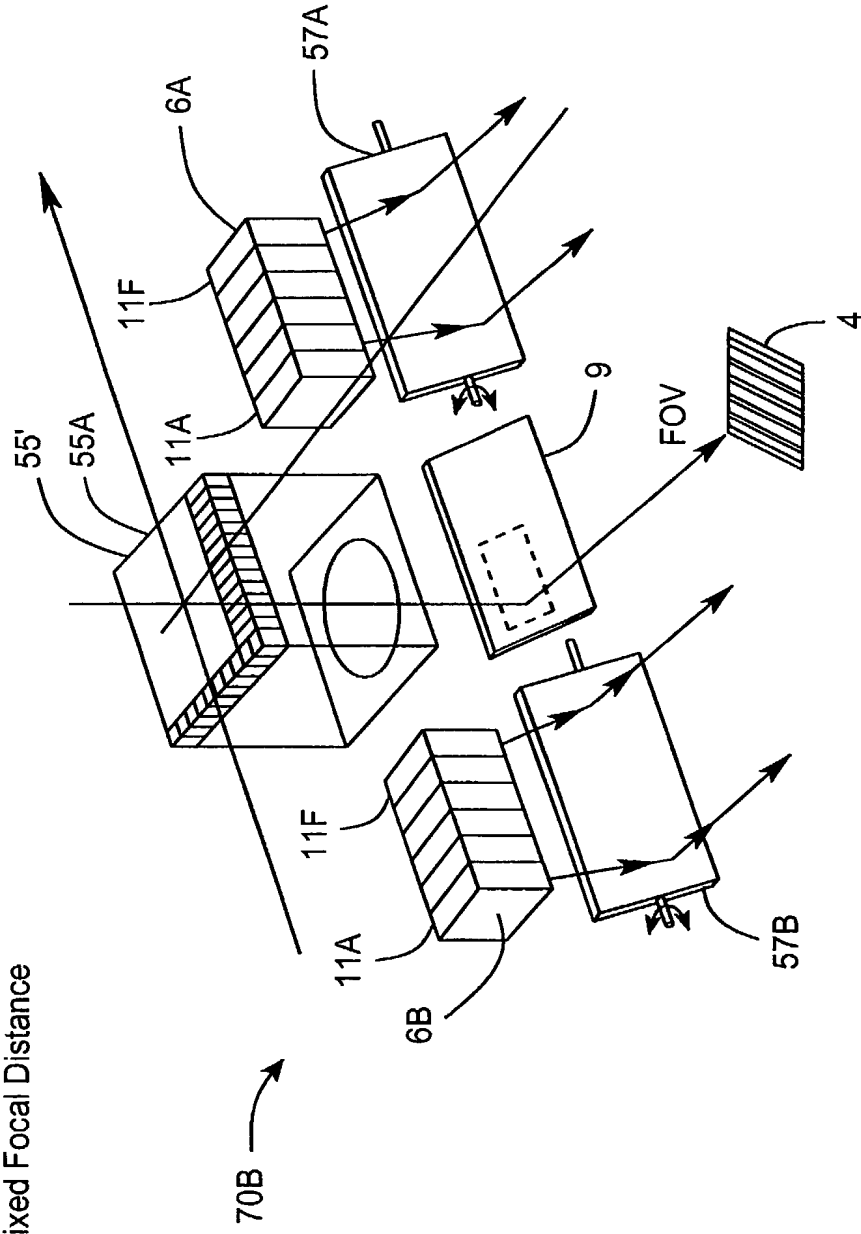
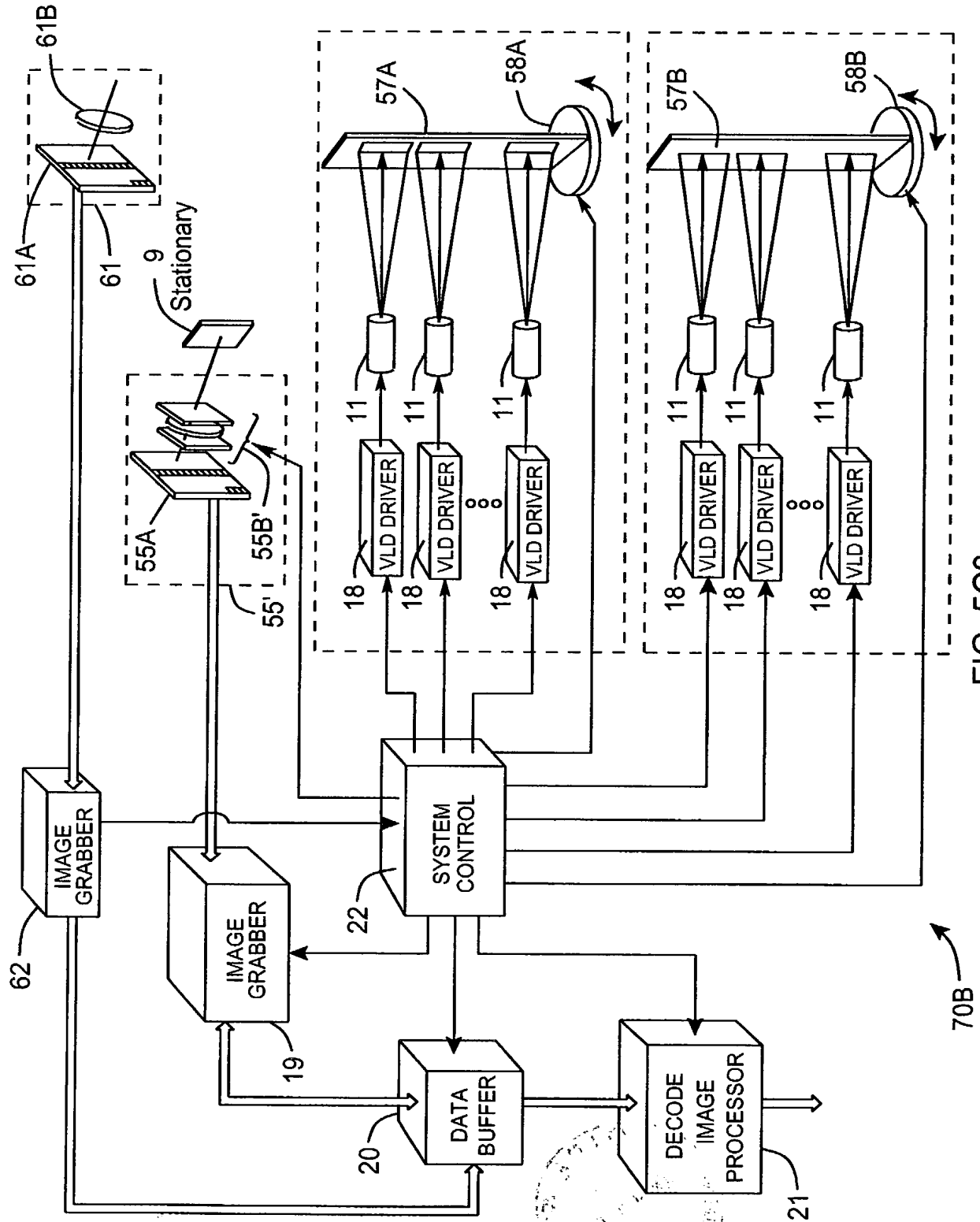


FIG. 5C2





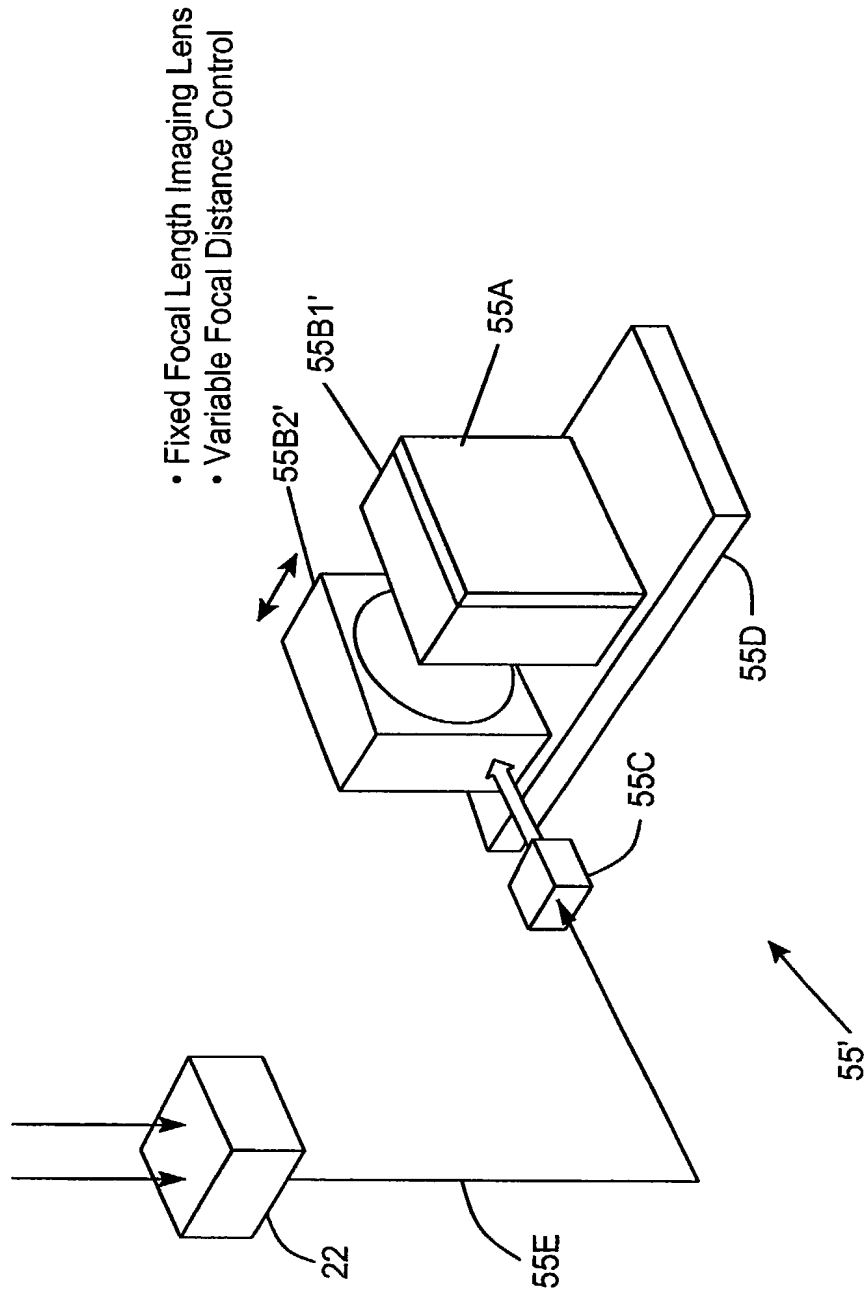


FIG. 5C4

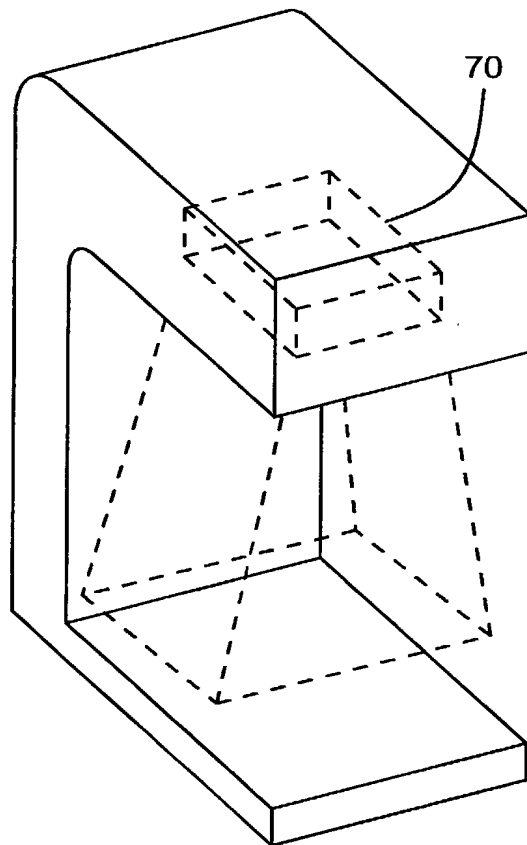


FIG. 5D



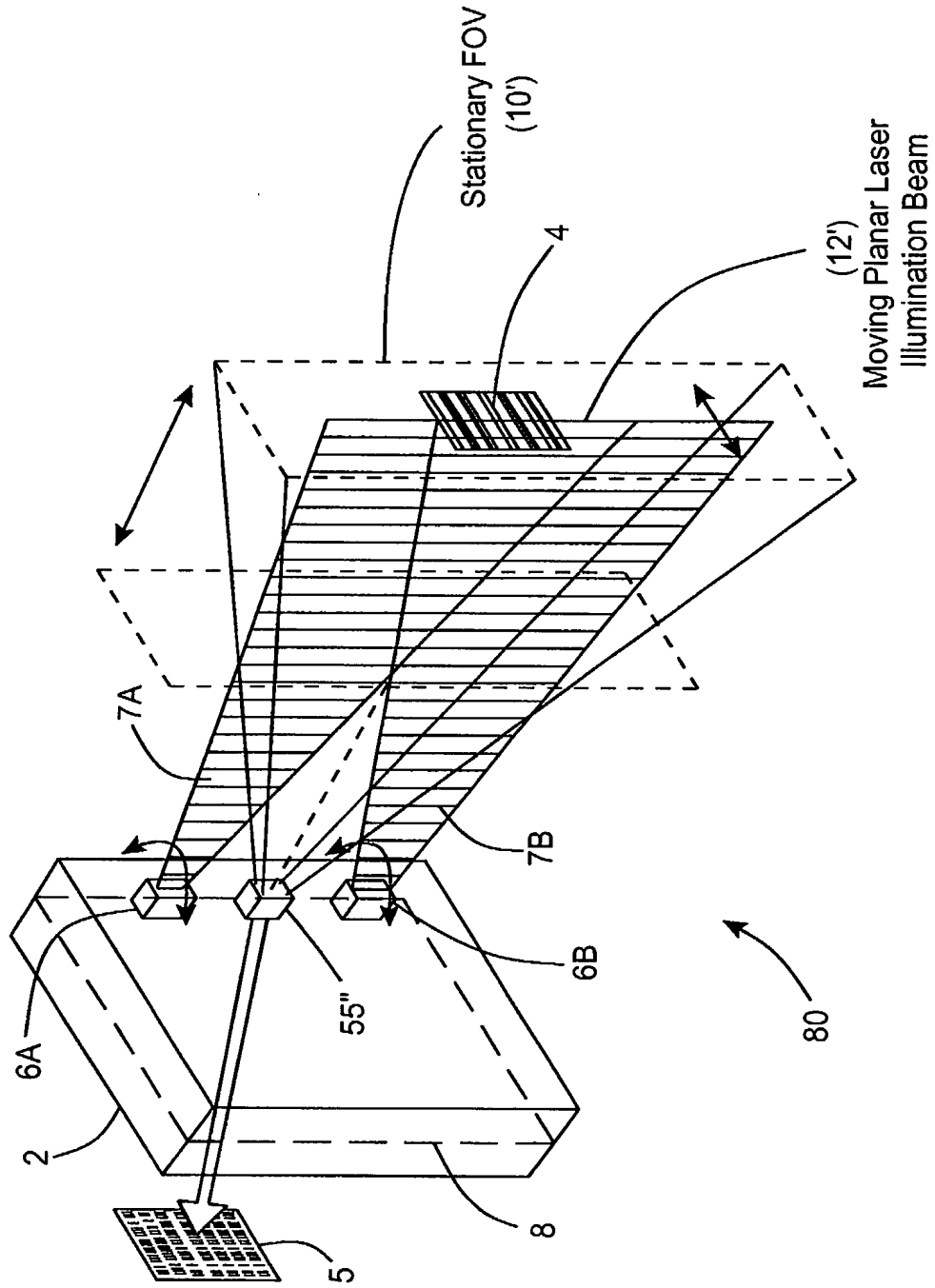


FIG. 6A

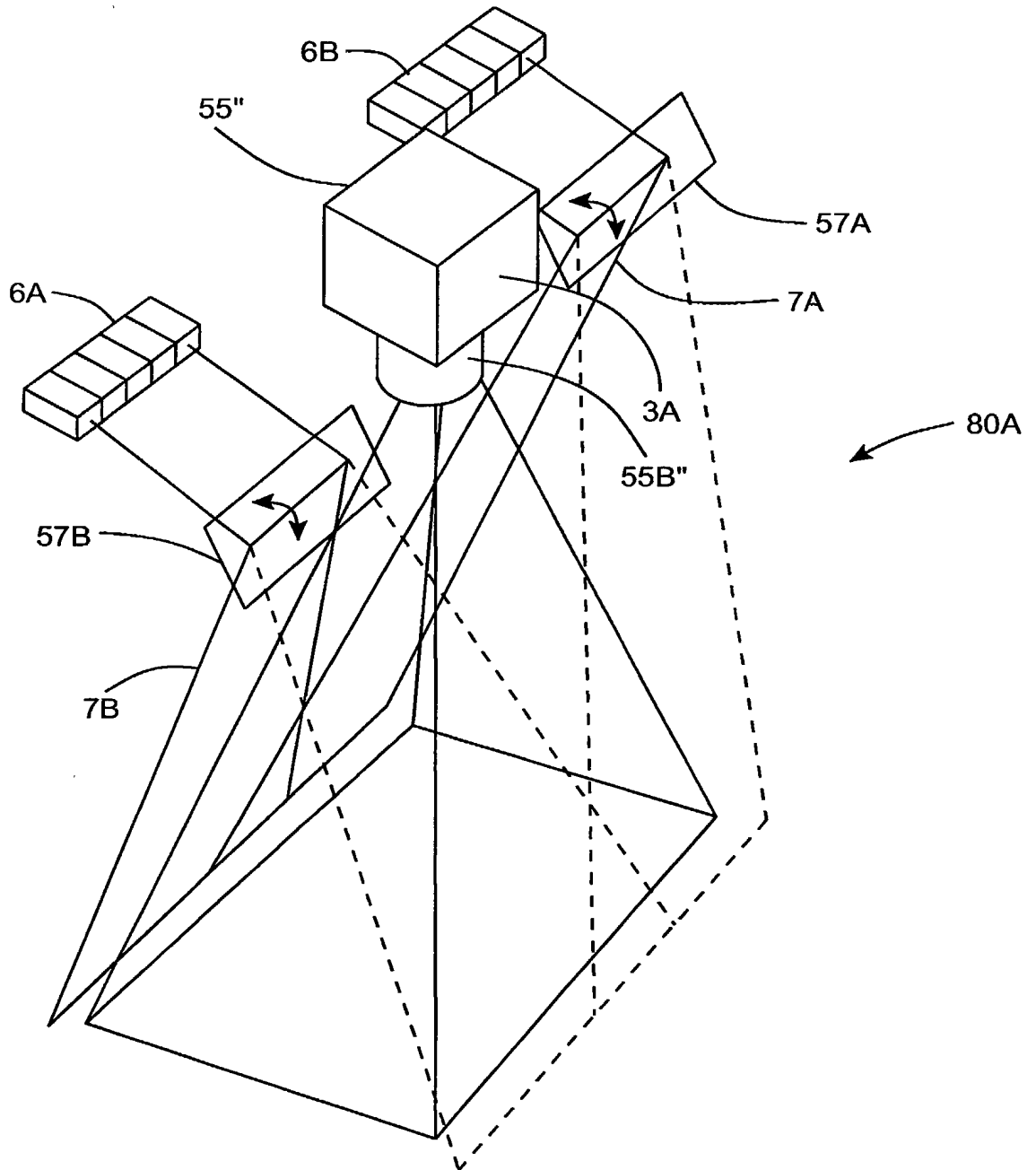
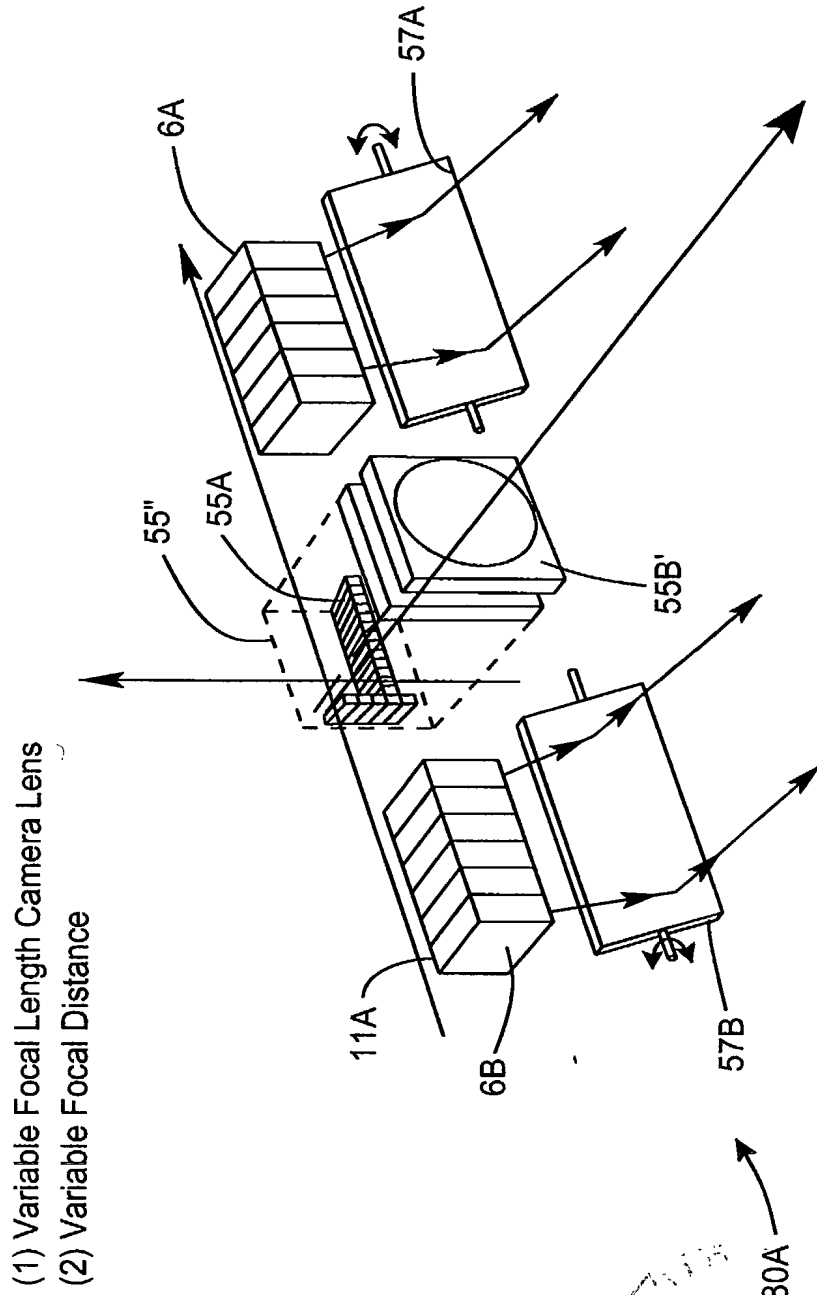


FIG. 6B1



(1) Variable Focal Length Camera Lens
(2) Variable Focal Distance

FIG. 6B2

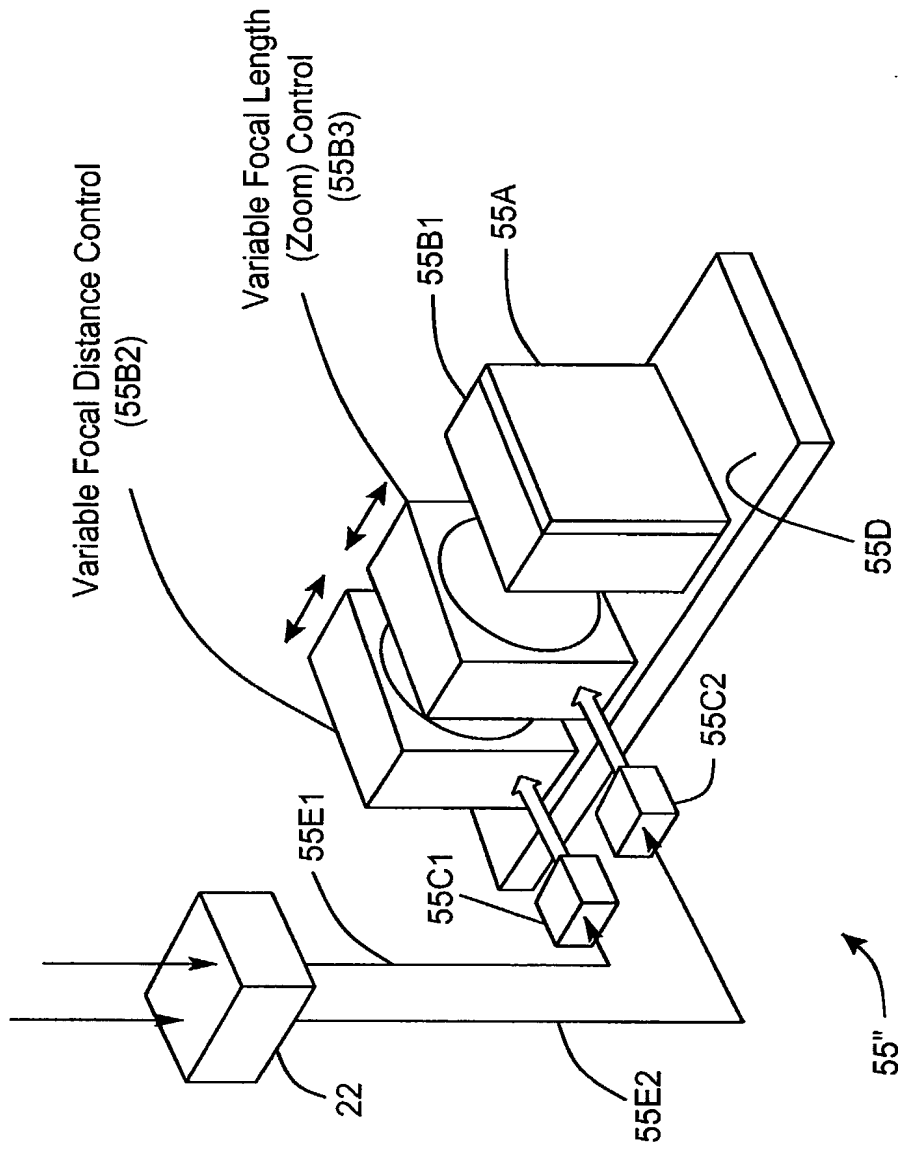


FIG. 6B4



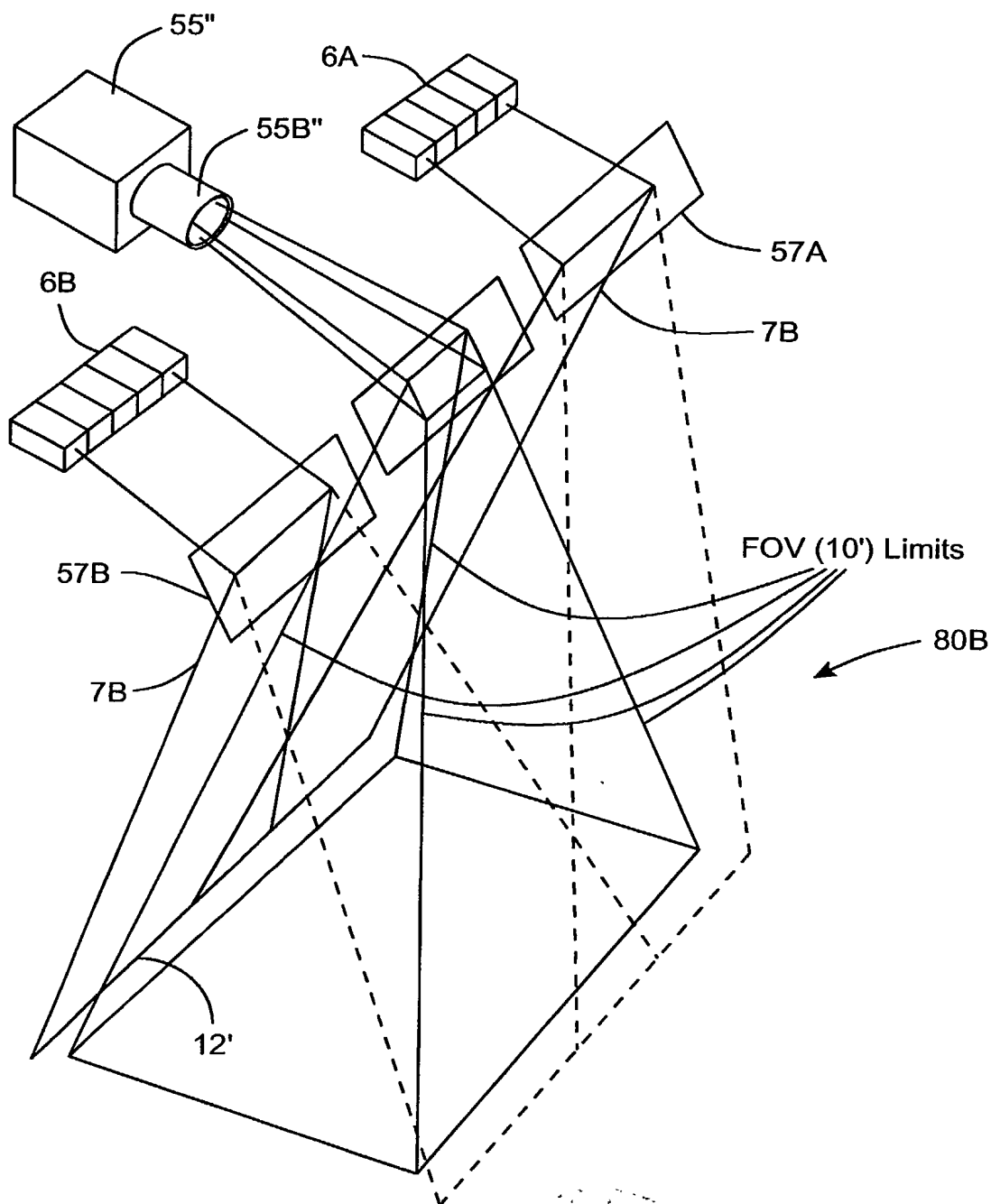


FIG. 6C1

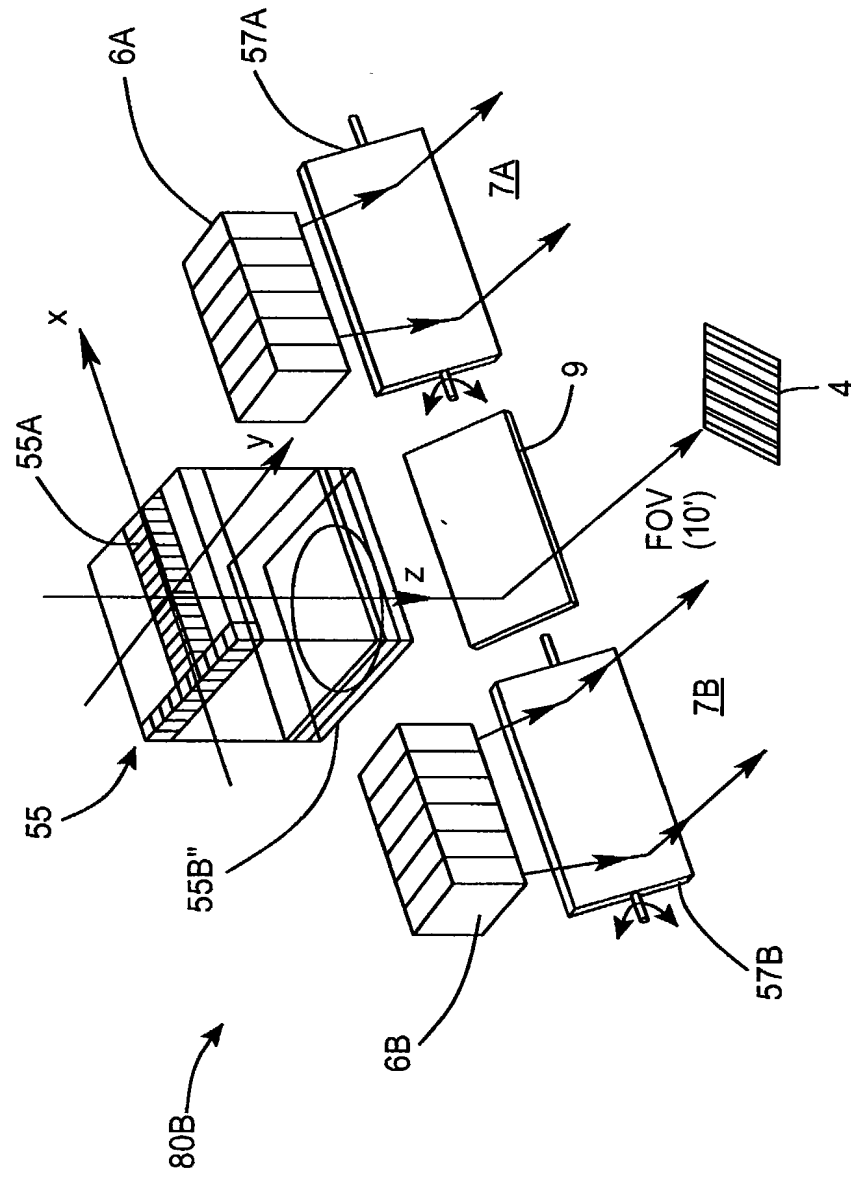


FIG. 6C2

(1) Variable Focal Length Camera Lens
(2) Variable Focal Distance

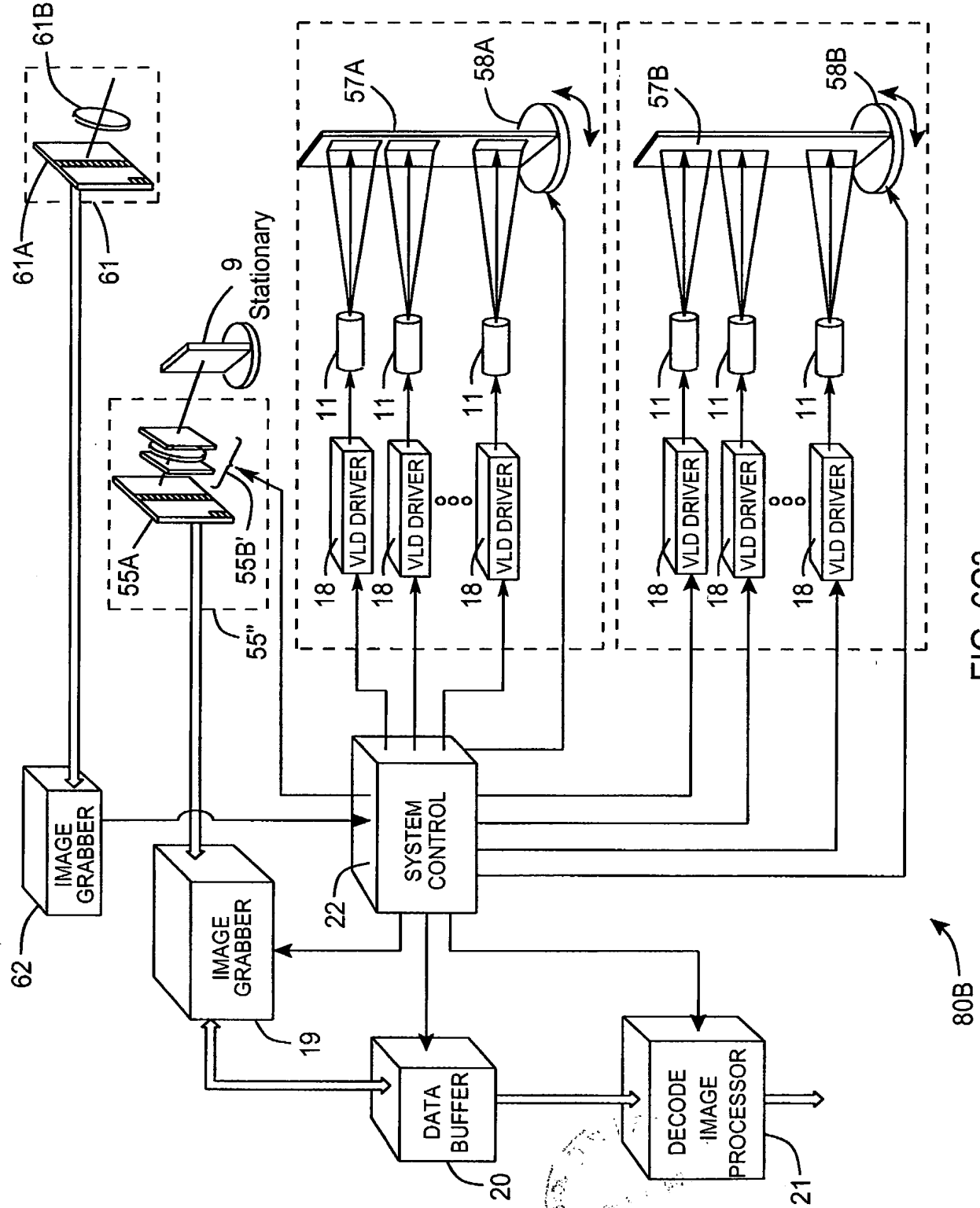


FIG. 6C3

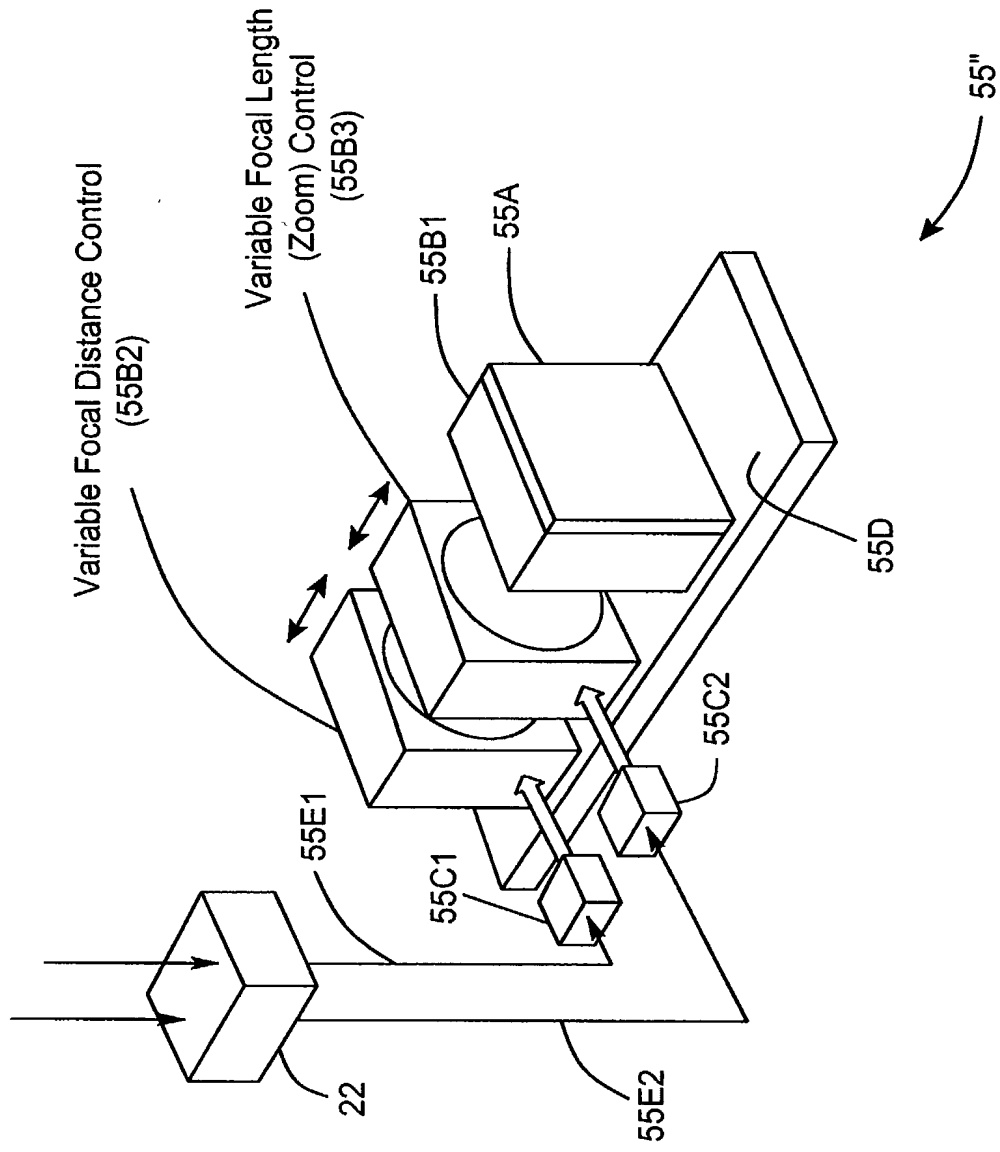


FIG. 6C4

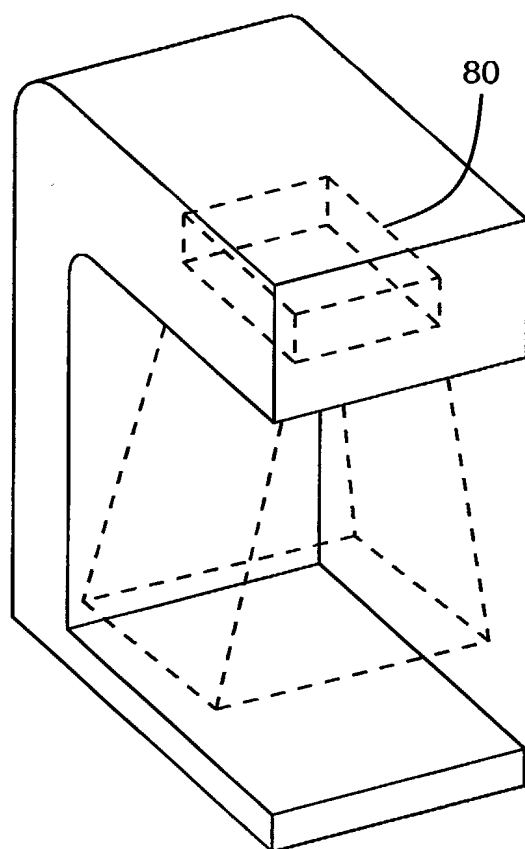
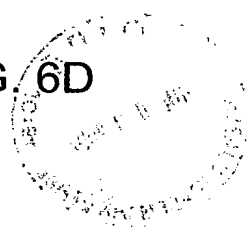


FIG. 6D



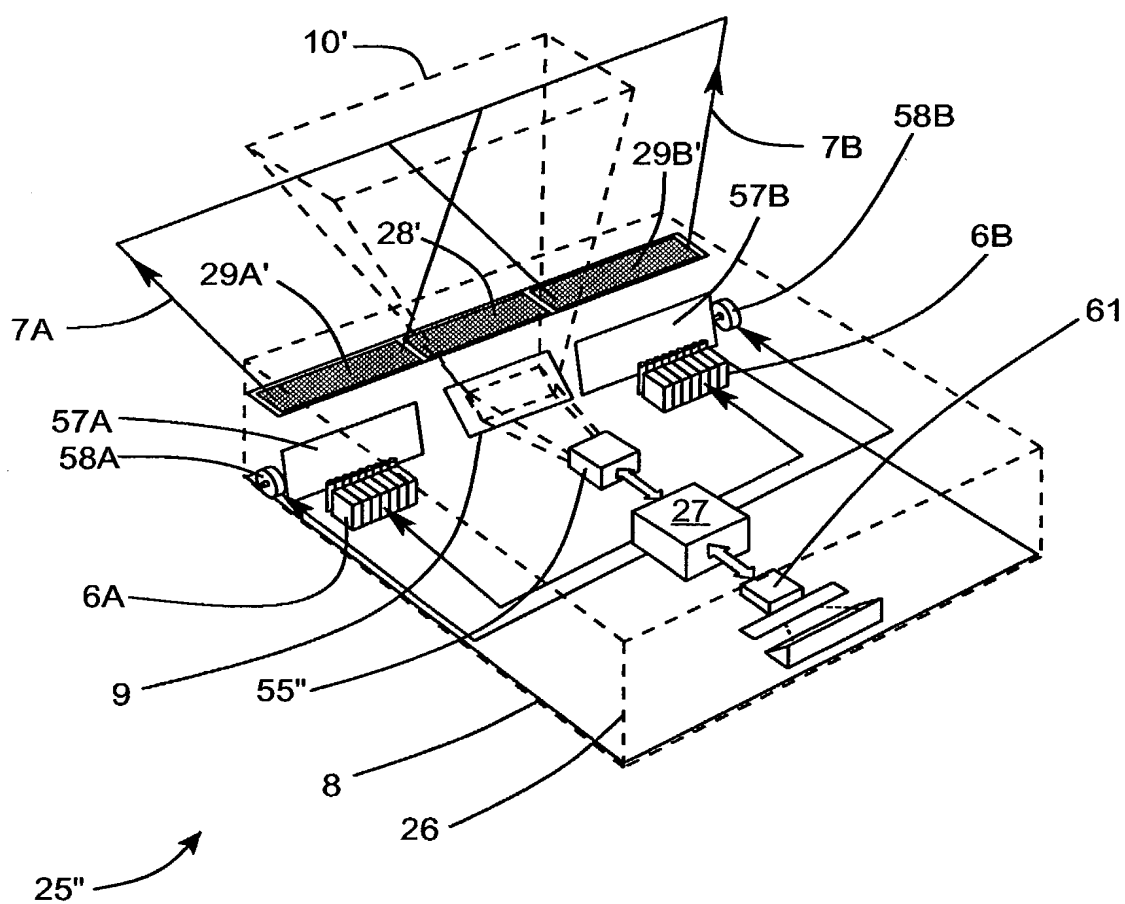


FIG. 6D1

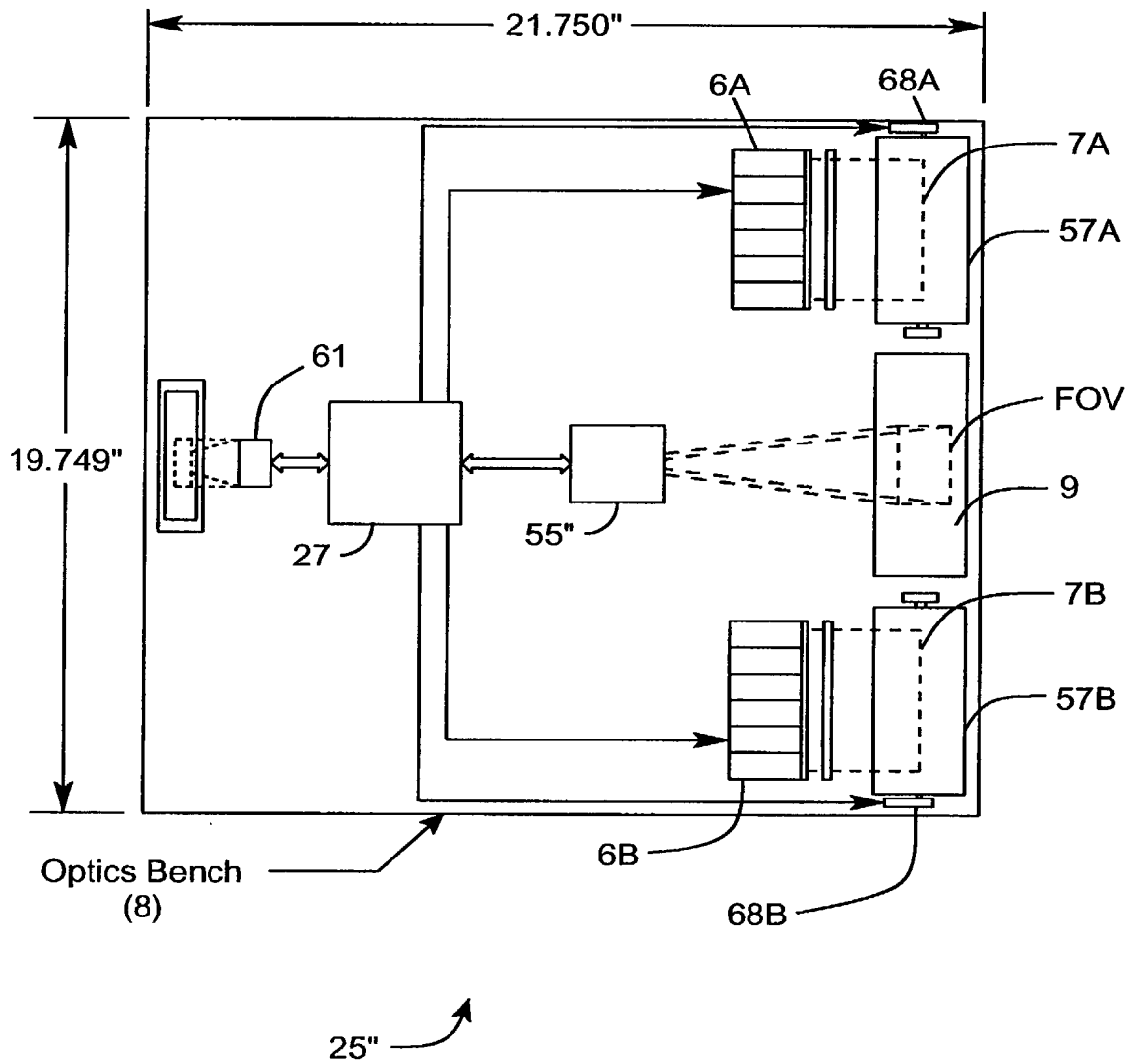


FIG. 6D2

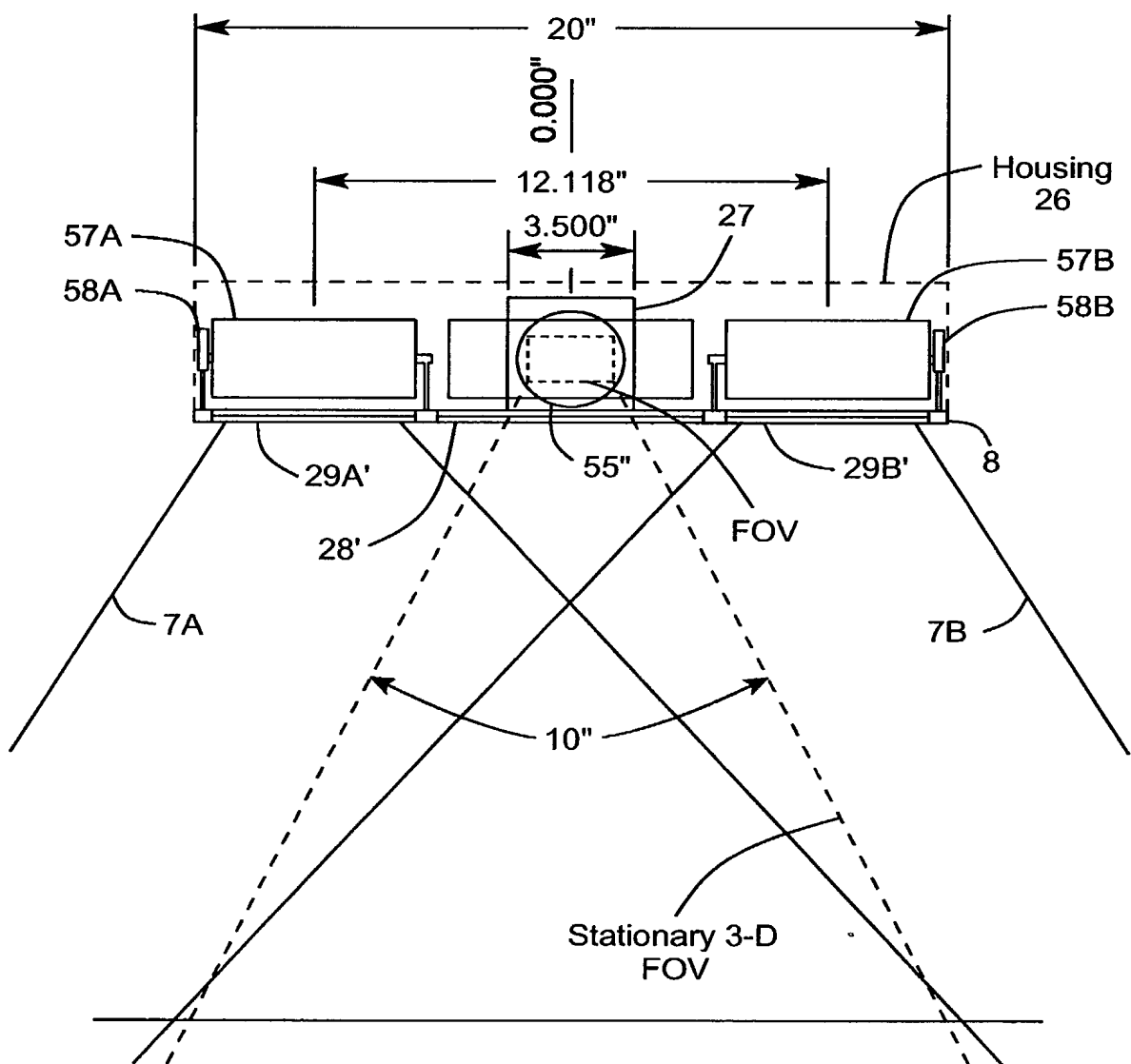


FIG. 6D3



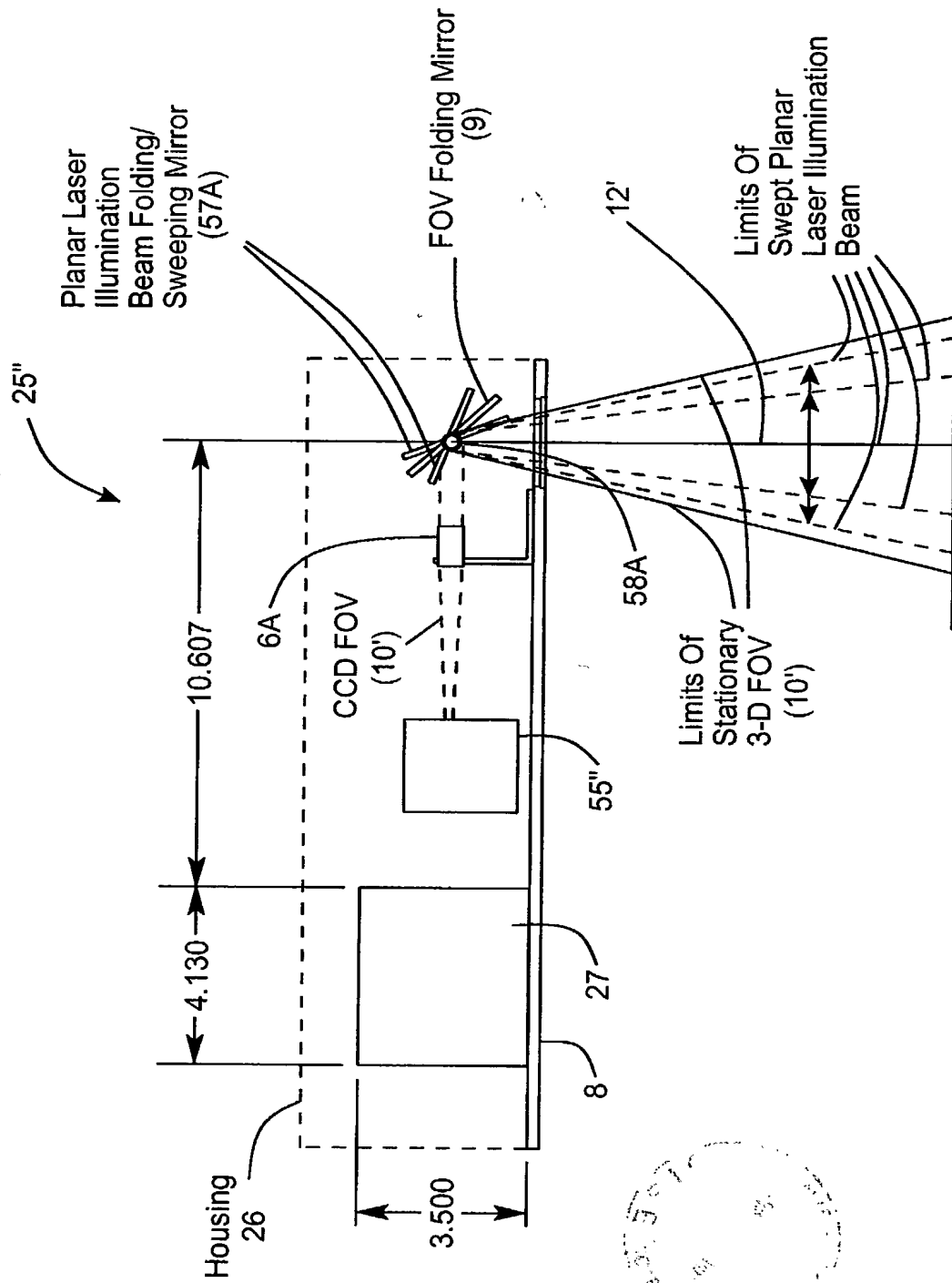


FIG. 6D4

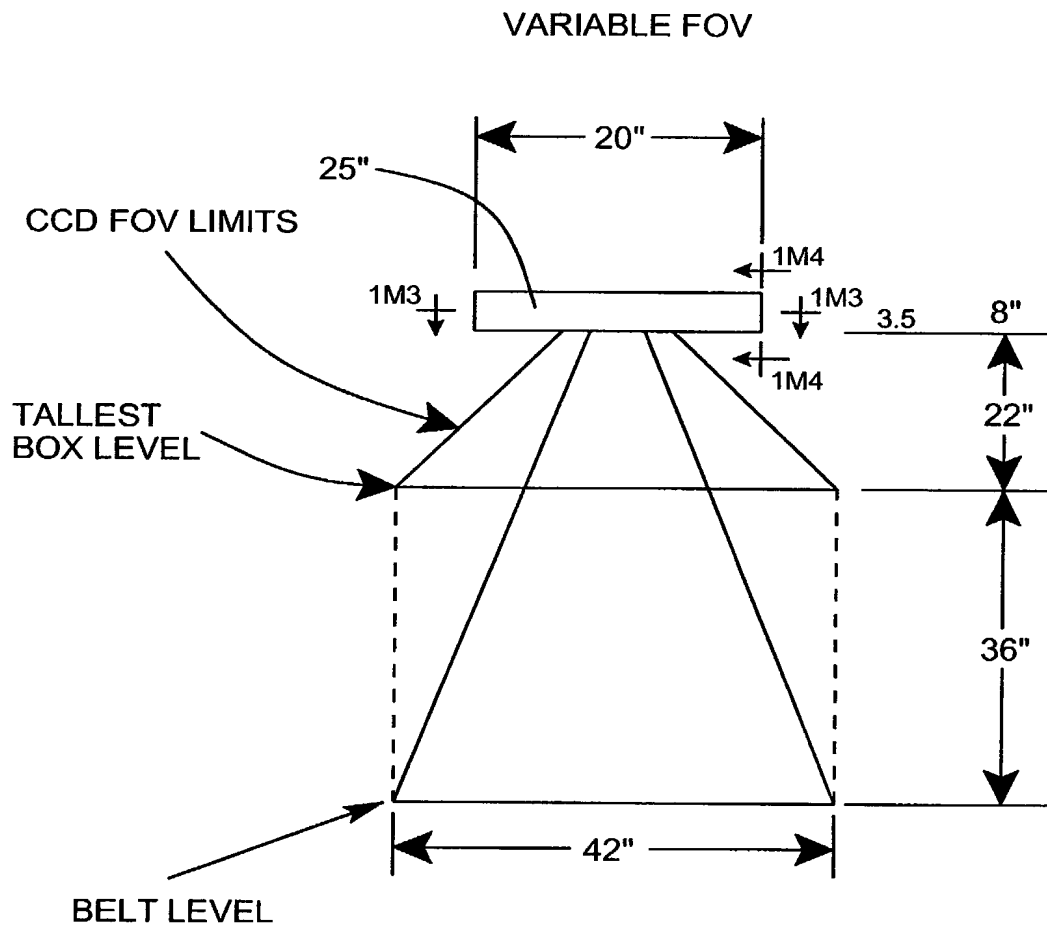
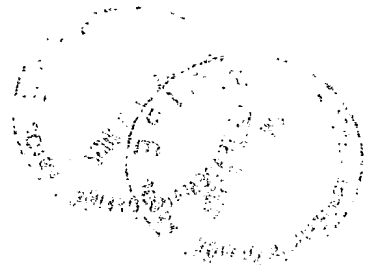


FIG. 6D5



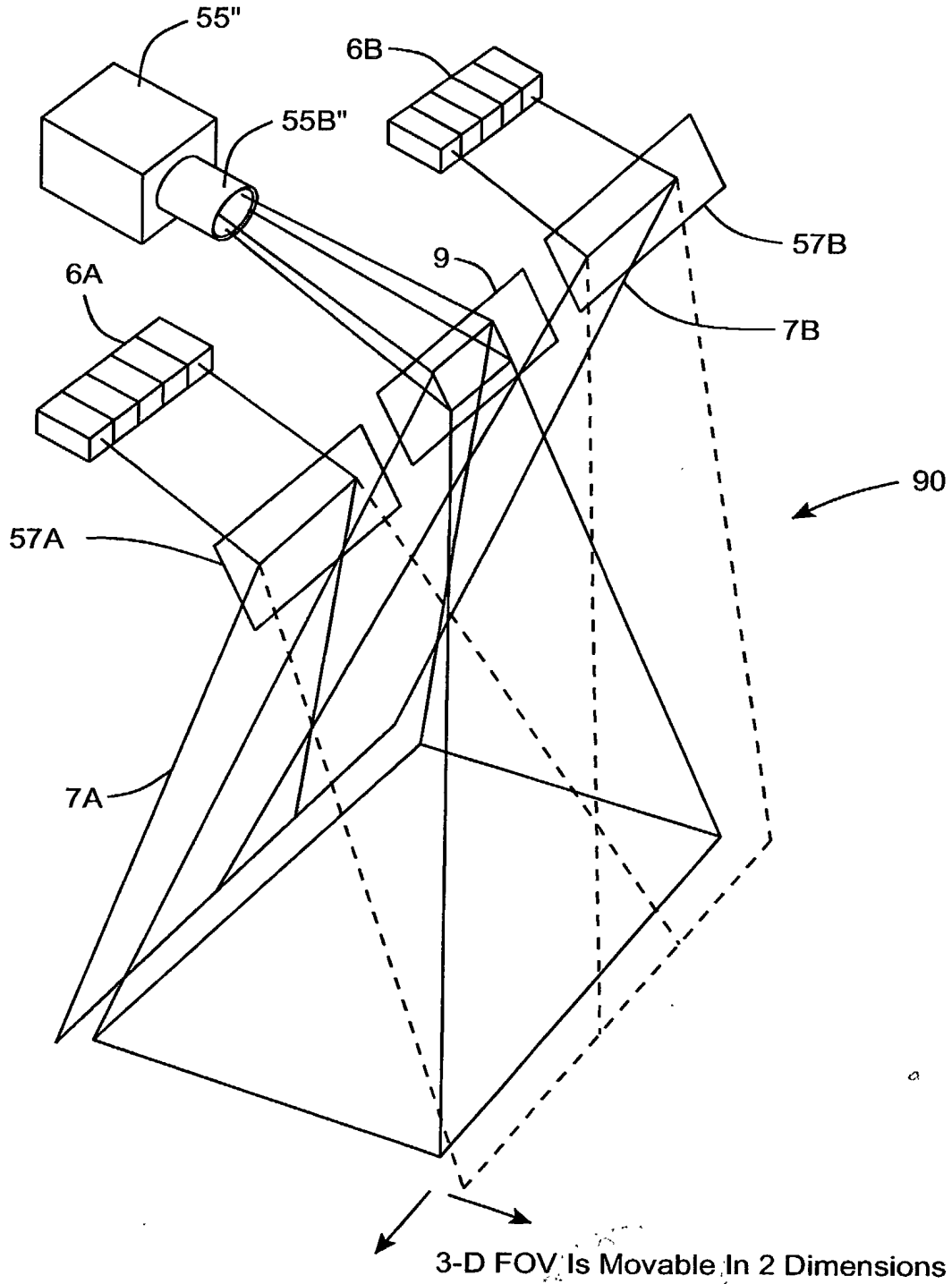


FIG. 6E1

- (1) Variable Focal Length Camera Lens
- (2) Variable Focal Distance

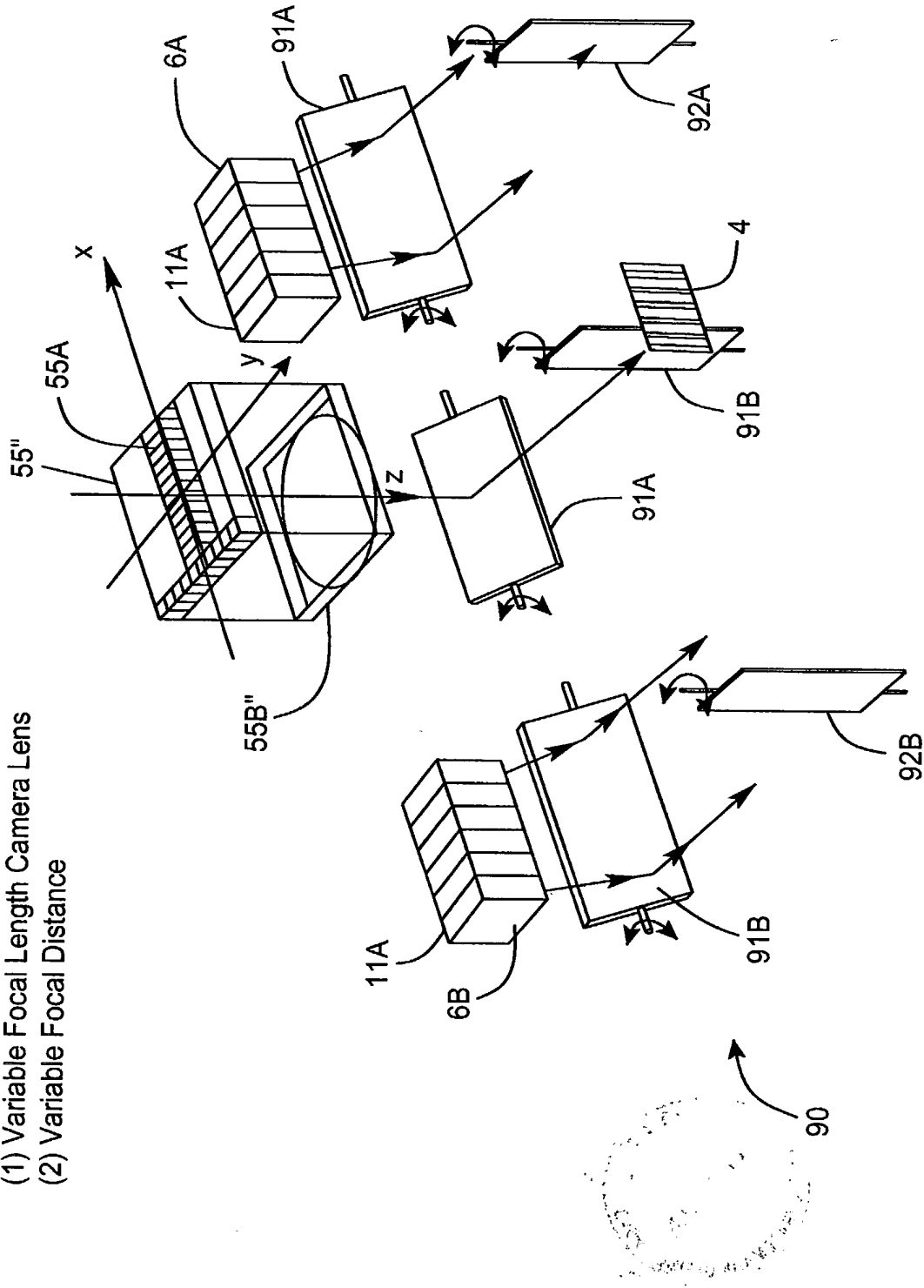


FIG. 6E2

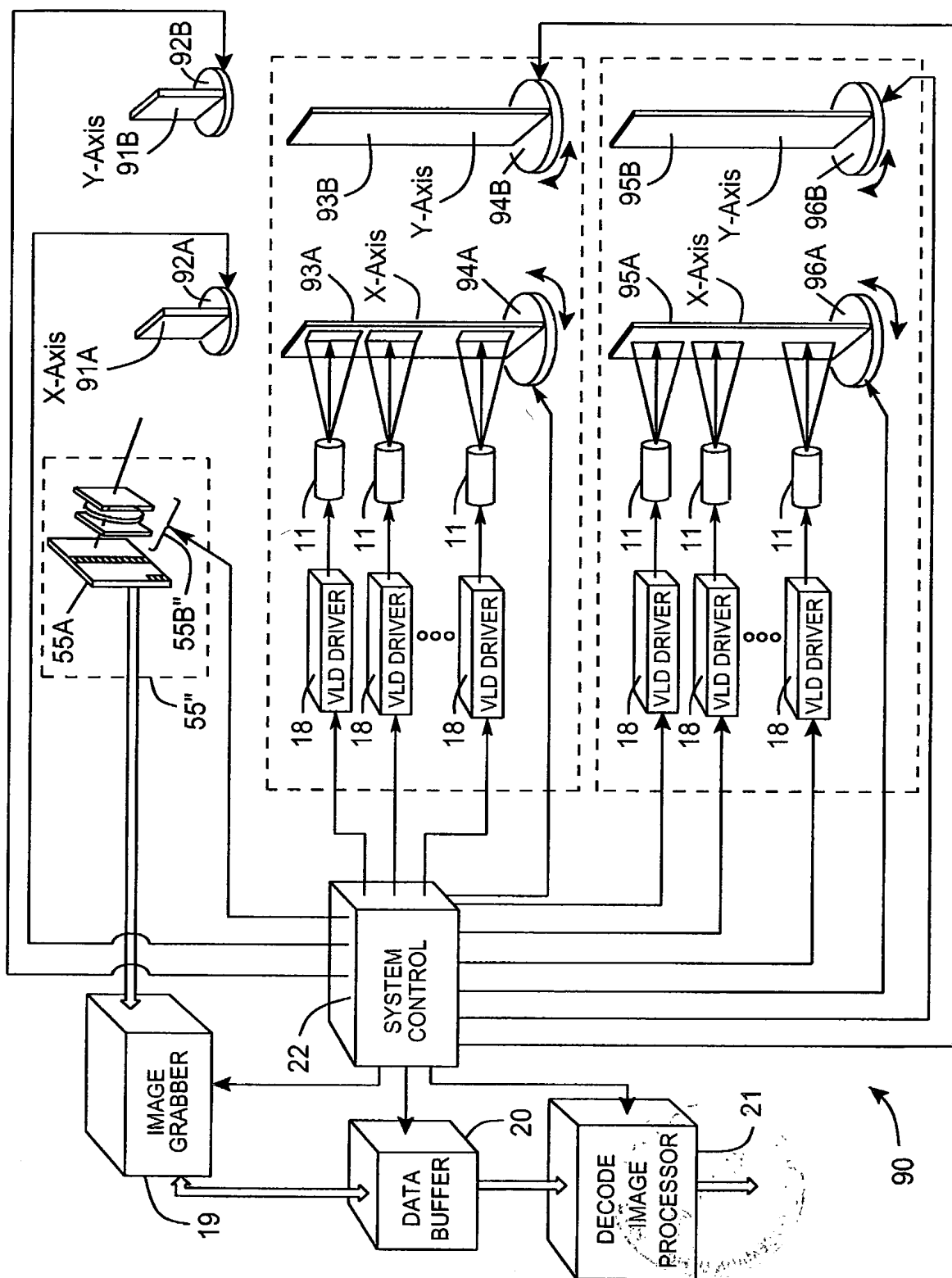


FIG. 6E3

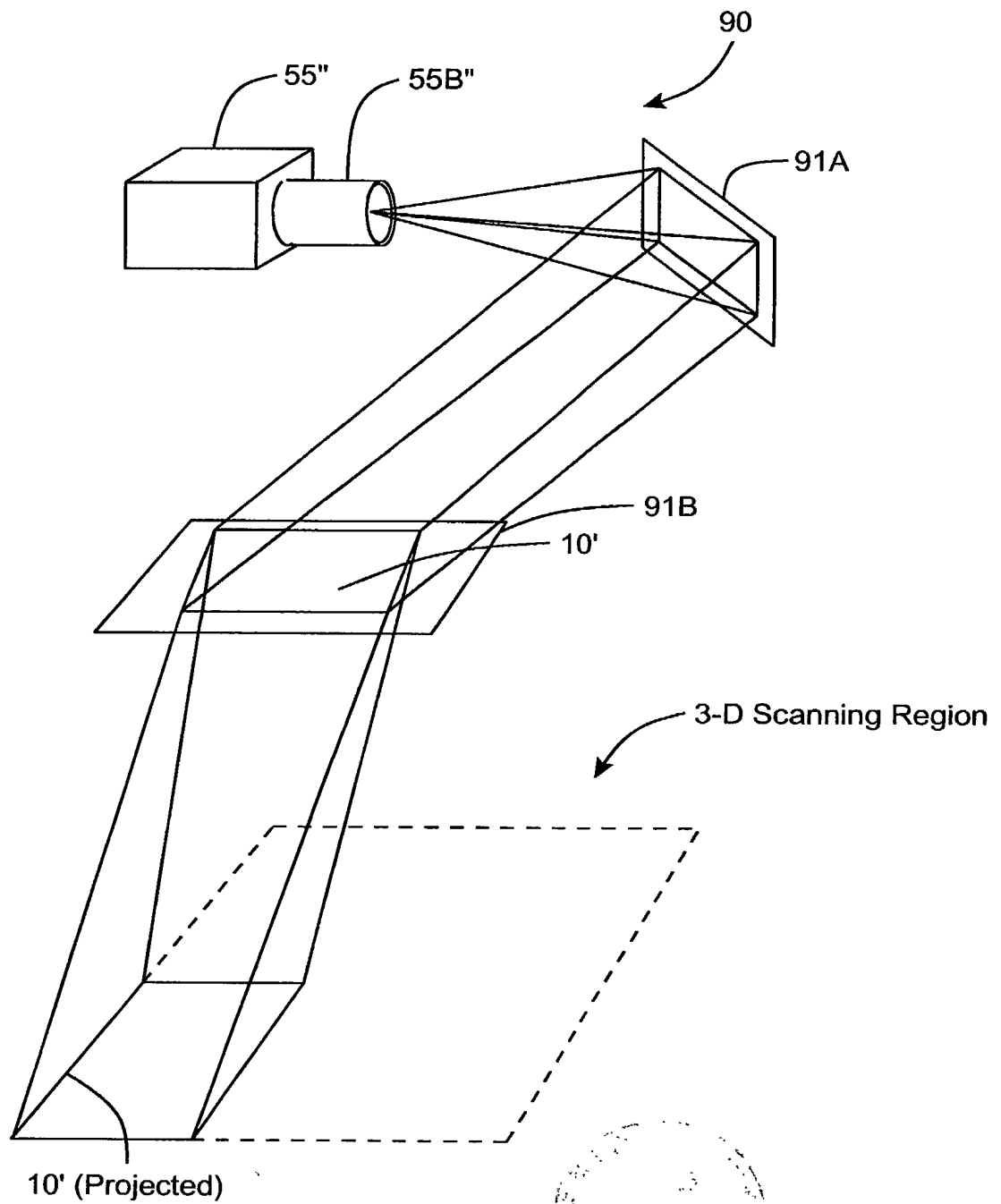


FIG. 6E4

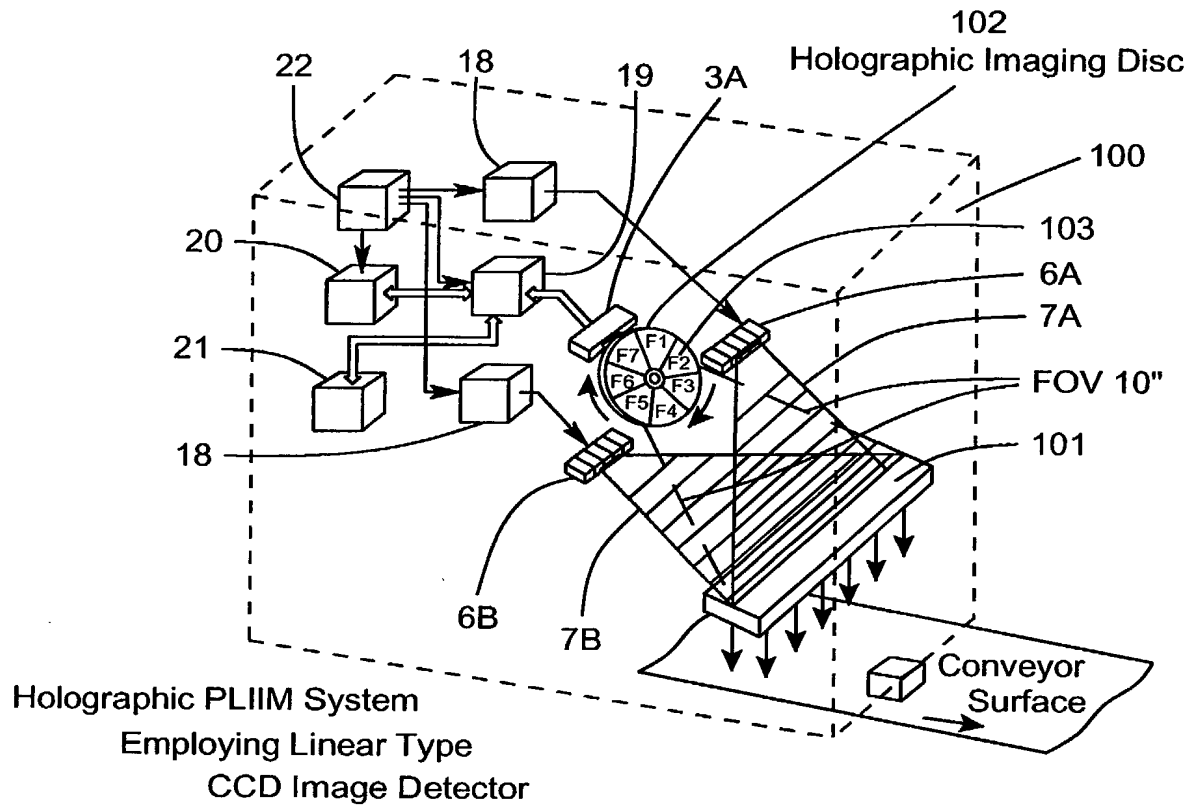


FIG. 7A

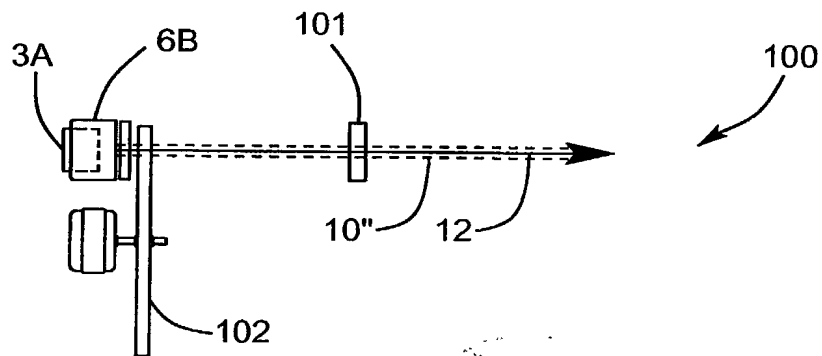


FIG. 7B

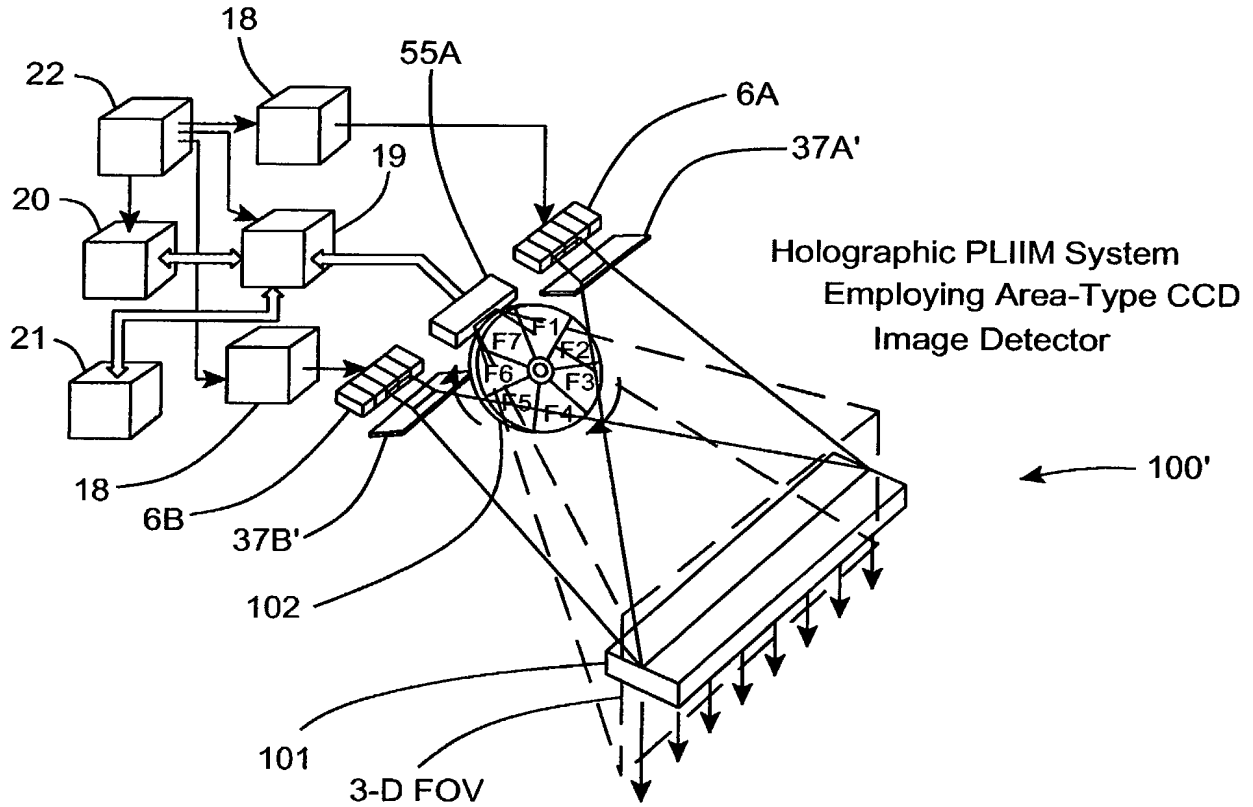


FIG. 8A

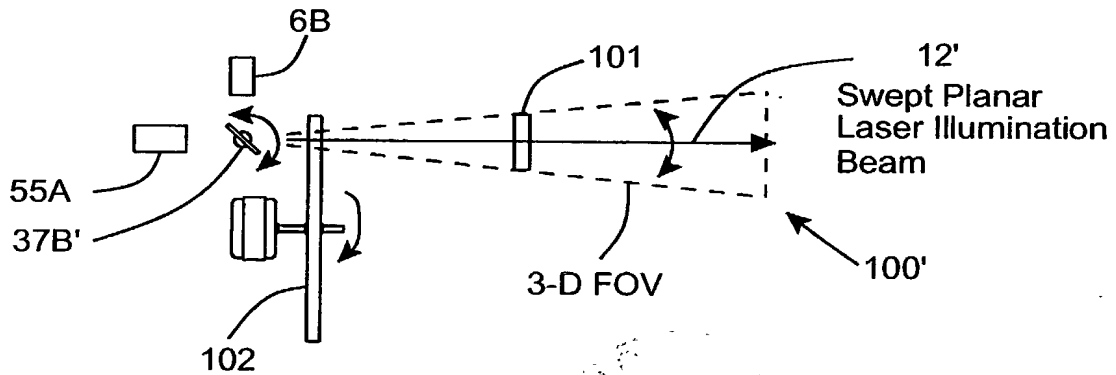


FIG. 8B

1-D CCD Scanner Embodiment

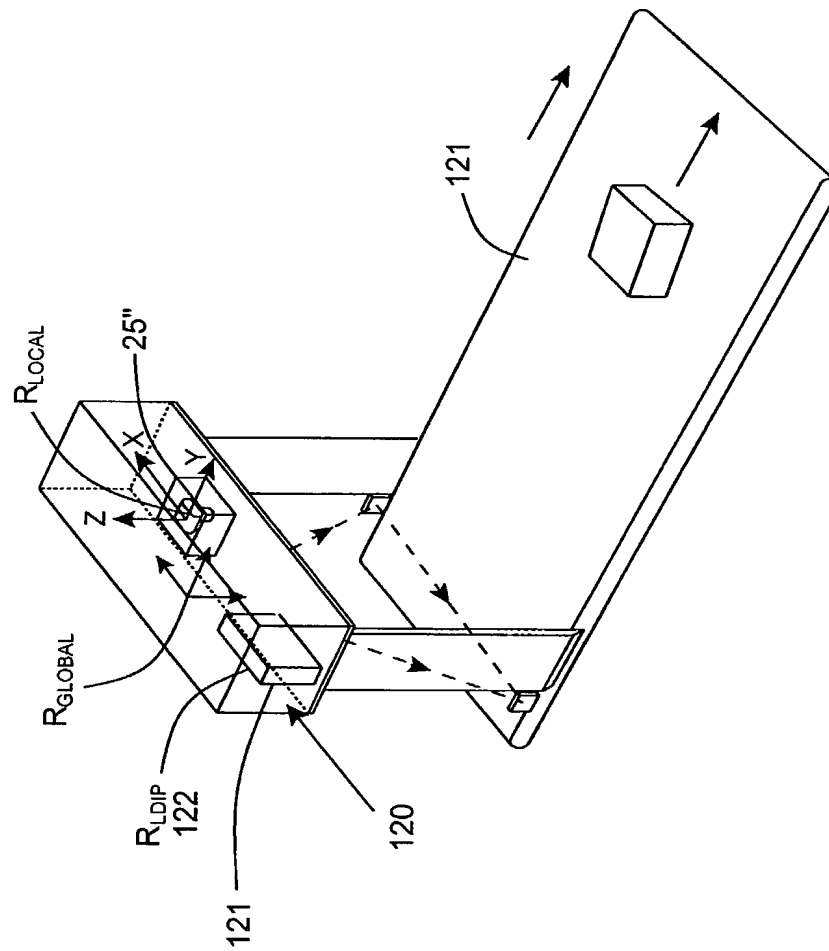


FIG. 9

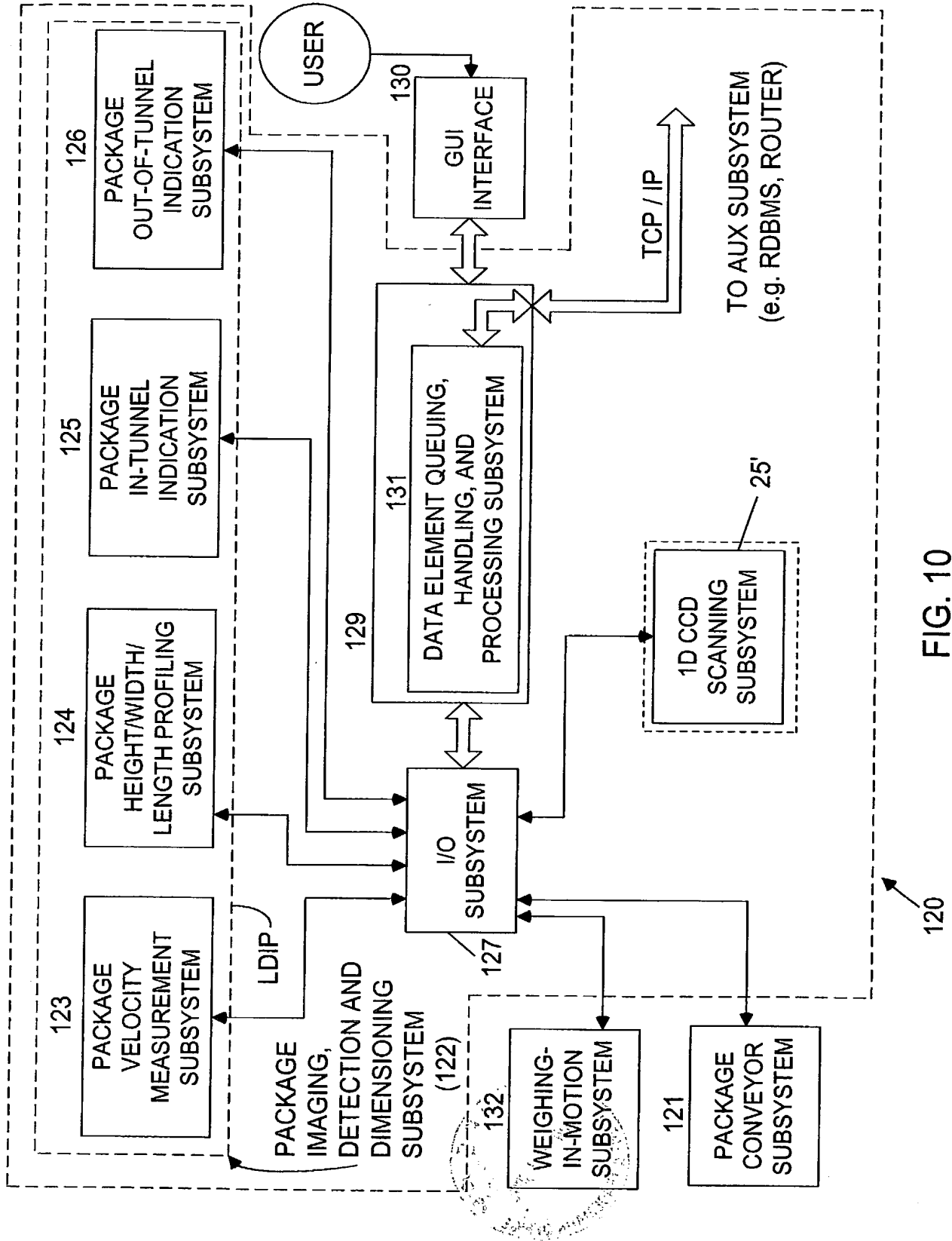


FIG. 10

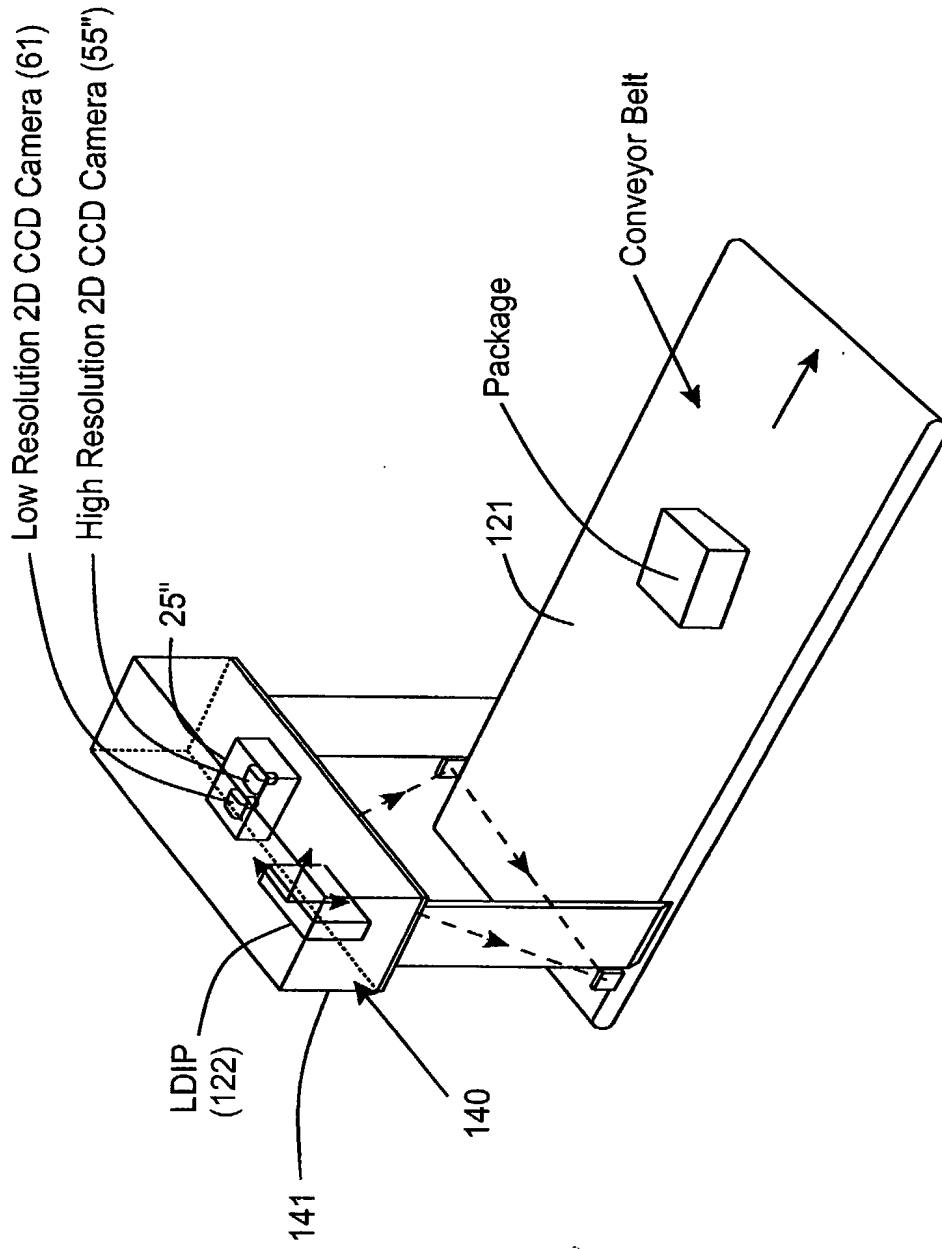


FIG. 11

FIG. 12

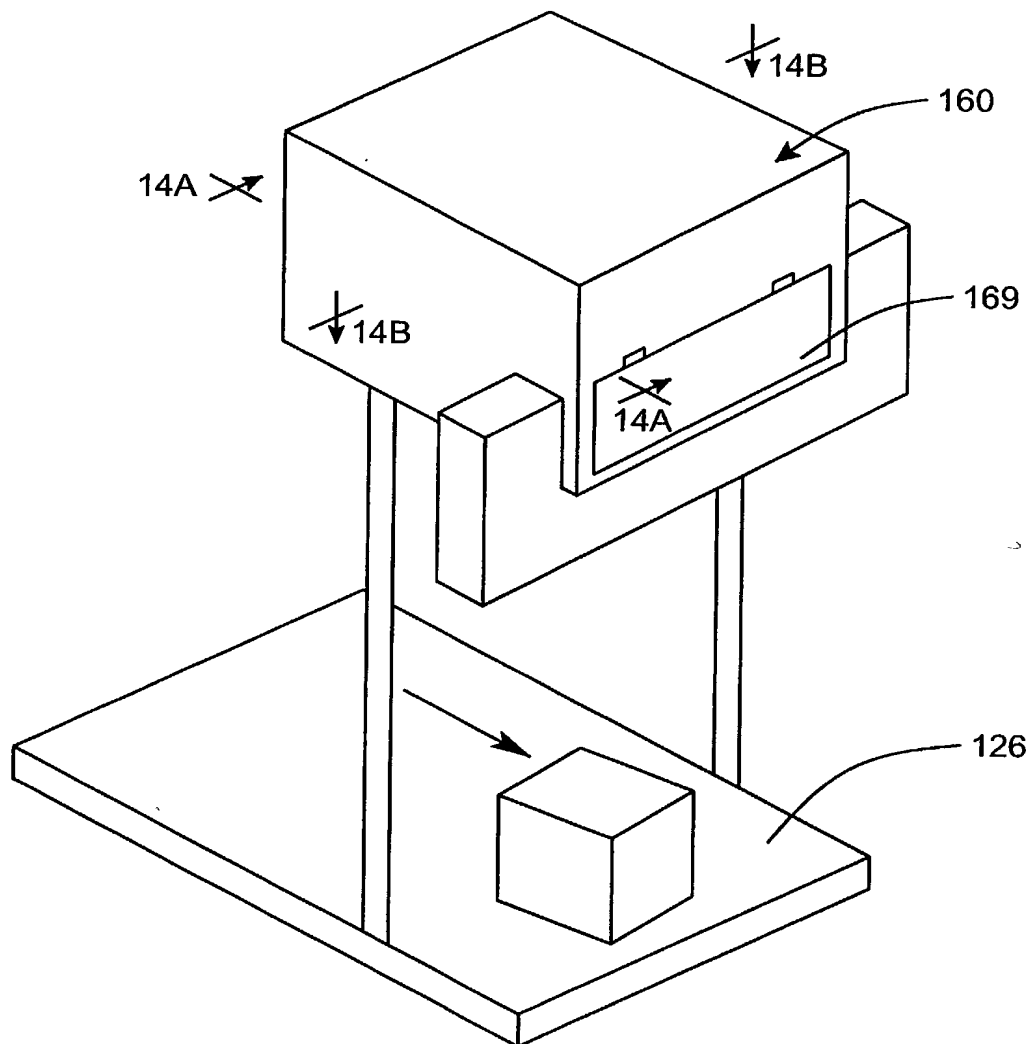


FIG. 13



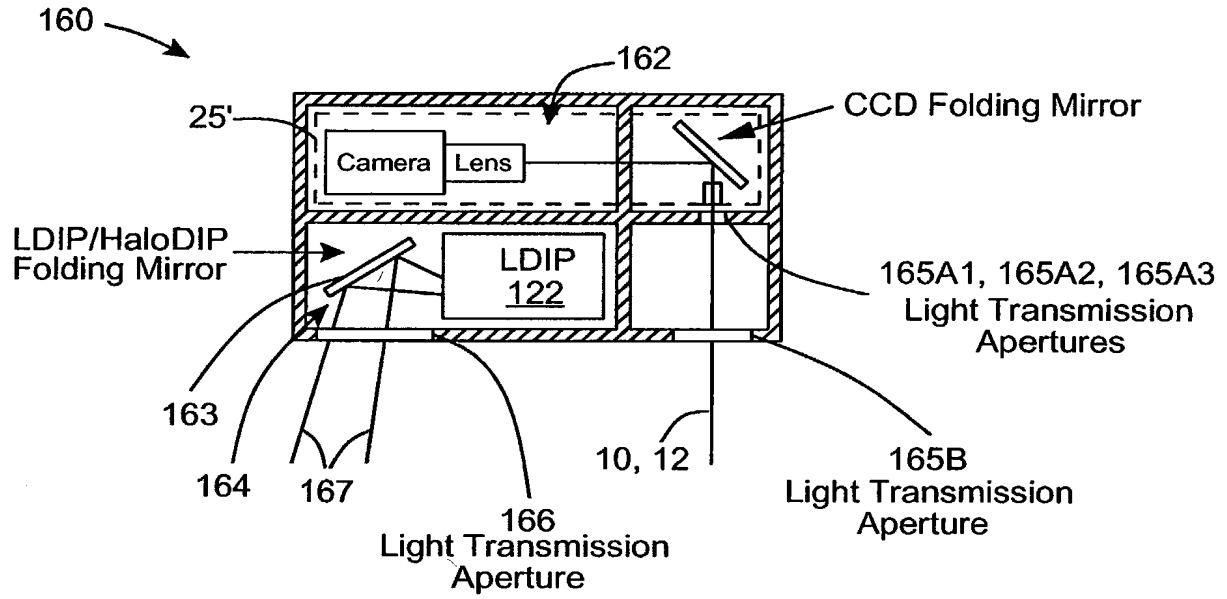


FIG. 14A

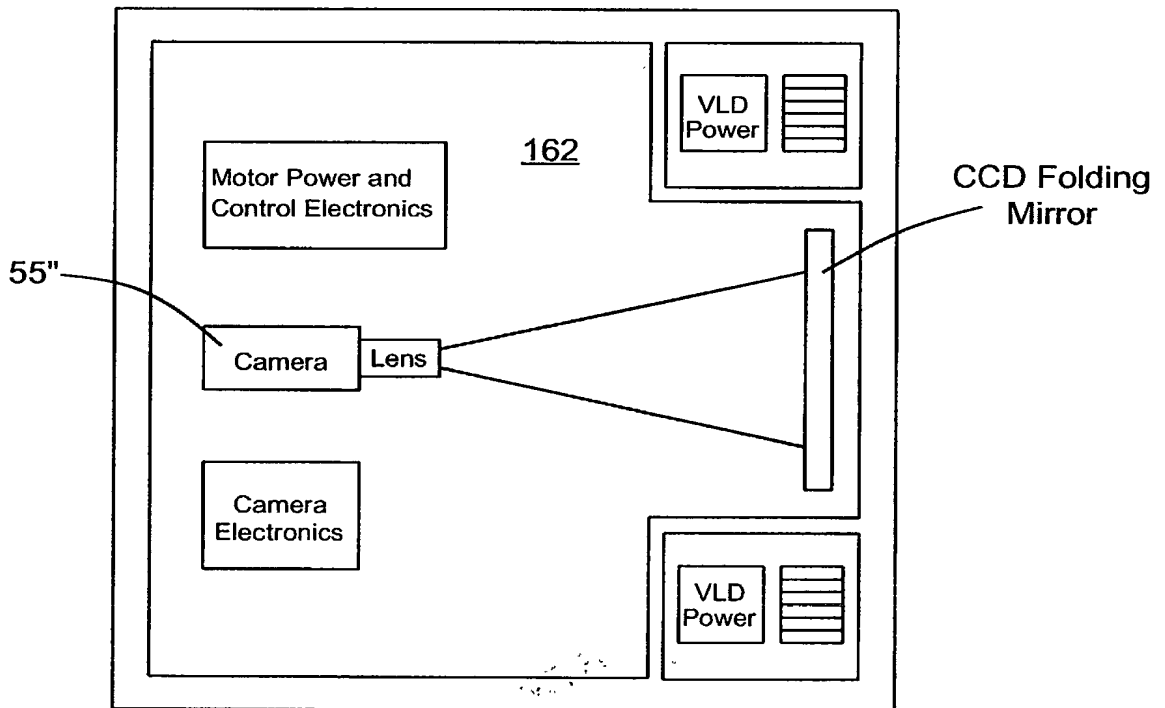


FIG. 14B

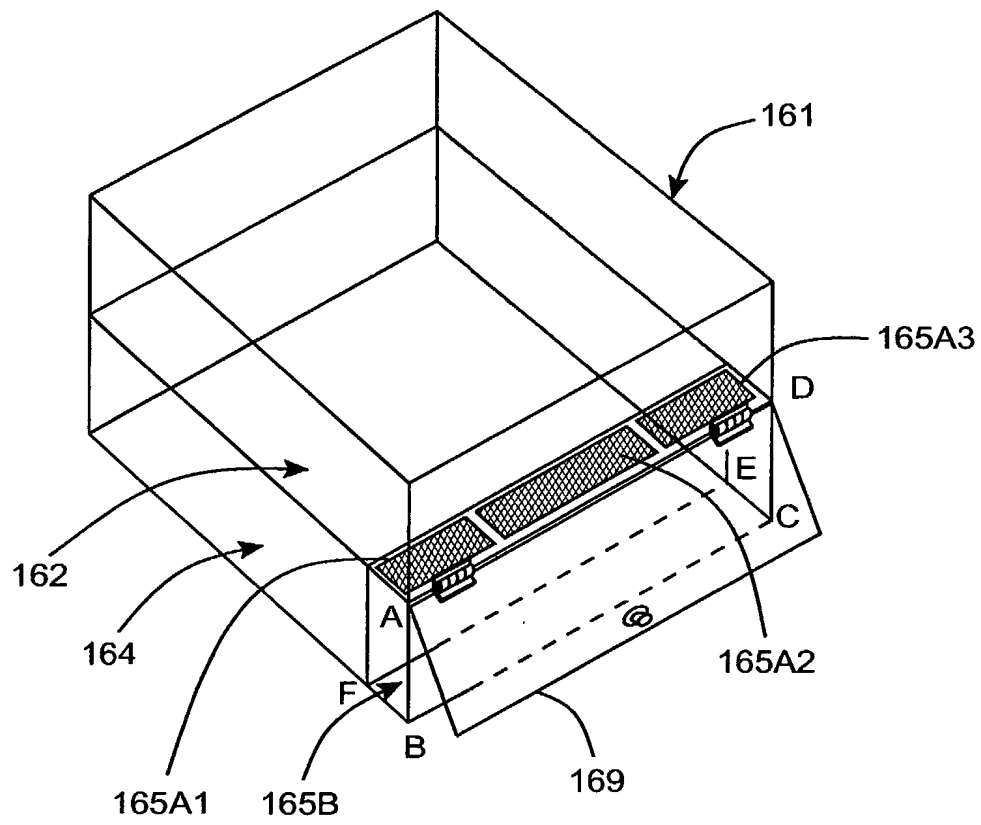


FIG. 15

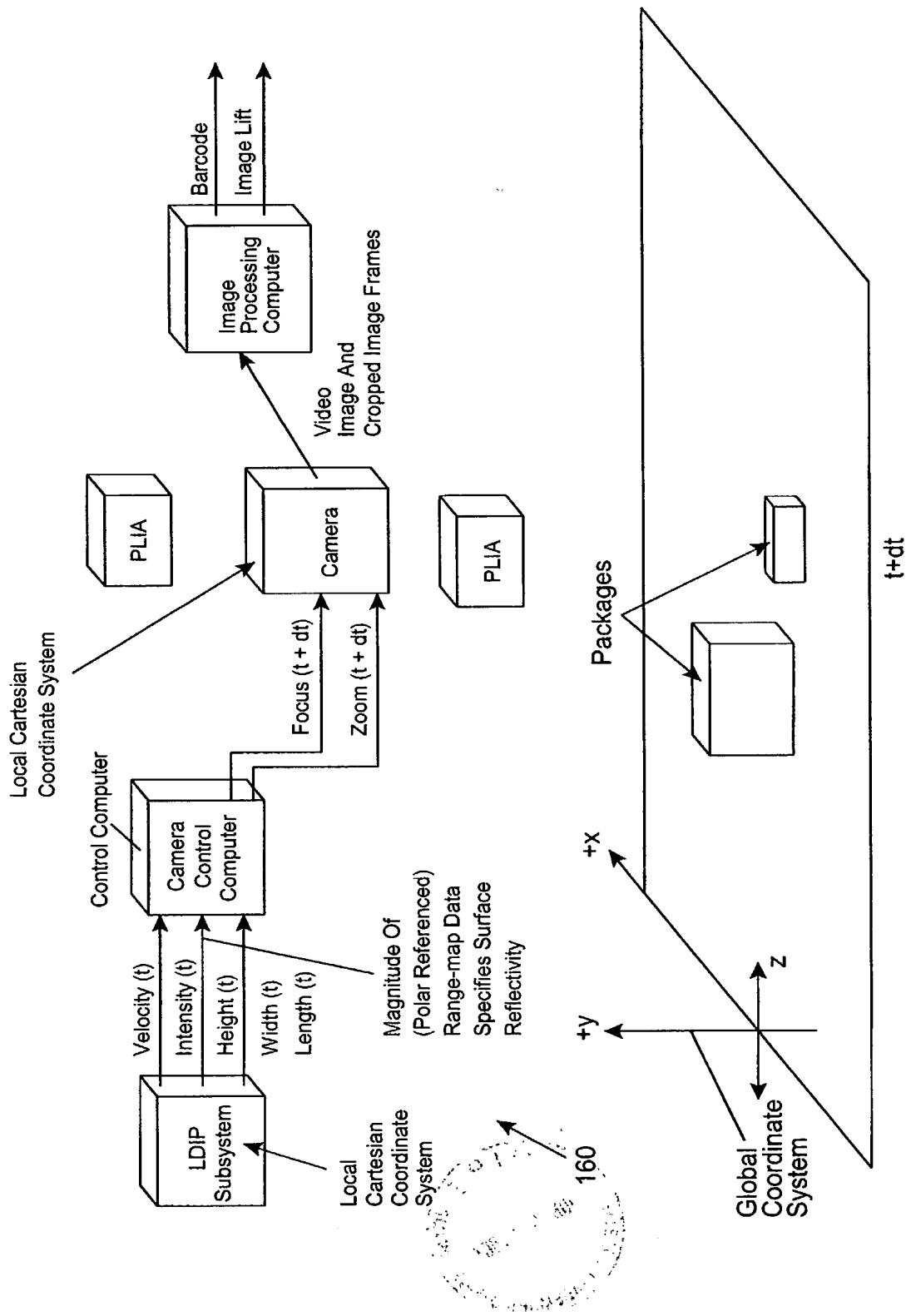


FIG. 16

11 22 33 44 55 66 77 88 99 00 11 22 33 44 55 66 77 88 99 00